

THE INFLUENCE OF SMS ADVERTISING ON ONLINE BRAND EQUITY AMONG STUDENTS IN THE UK

Mehran Darabi

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**THE INFLUENCE OF SMS ADVERTISING ON ONLINE
BRAND EQUITY AMONG STUDENTS IN THE UK**

Mehran Darabi

Salford Business School

University of Salford, Salford, UK

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ABBREVIATIONS

<i>Abbreviation</i>	<i>Construct</i>
<i>App</i>	Mobile application
<i>Aad</i>	Attitude toward an advertisement
<i>Ab</i>	Attitude toward brand
<i>ATUSA</i>	Attitude toward using SMS advertising
<i>AVE</i>	Average Variance Extracted
<i>AW</i>	Brand Awareness
<i>BL</i>	Brand Loyalty
<i>CB</i>	Covariance Based
<i>CB-SEM</i>	Covariance Based Structural Equation Modelling
<i>CBBE</i>	Consumer Based Brand Equity
<i>CMV</i>	Common Method variance
<i>CNTRL</i>	Consumer Control
<i>DV</i>	Dependant Variable
<i>EM</i>	Expectation Maximisation
<i>FBBE</i>	Financial Based Brand Equity
<i>IB</i>	Intention to purchase brand
<i>HTMT</i>	Heterotrait- Monotrait Ratio
<i>ICT</i>	Information Communication Technology
<i>INC</i>	Incentives Assessments
<i>INF</i>	Informativeness
<i>IRR</i>	Irritateness
<i>IV</i>	Independent Variable
<i>KNW</i>	Knowledge
<i>LP</i>	Loyalty Programs
<i>Med</i>	Mediating Variable
<i>MMA</i>	Mobile Marketing Association
<i>MMS</i>	Multimedia Messaging Services
<i>MNP</i>	Mobile Network Provider
<i>MSI</i>	Marketing Science Institute

<i>Abbreviation</i>	<i>Construct</i>
<i>OBE</i>	Online brand equity
<i>OCE</i>	Online Customer Experience
<i>ONS</i>	Office for National Statistics
<i>ORS</i>	Online Retail Service
<i>PBMA</i>	Permission Based Mobile Advertising
<i>PLS</i>	Partial Least Squares
<i>PLS-SEM</i>	Partial Least Squares Structural Equation Modelling
<i>PRI</i>	Privacy concern
<i>PRM</i>	Importance of Permission
<i>TAM</i>	Technology acceptance model
<i>TPB</i>	Theory of Planned Behaviour
<i>TRA</i>	Theory of Reasoned Action
<i>Trust</i>	Brand Trust
<i>SMS</i>	Short Message Service
<i>VA</i>	Brand Value
<i>Value</i>	Brand Value
<i>VIF</i>	Variance Inflation factor
<i>WSP</i>	Wireless Service Provider

ABSTRACT

With the technological improvements and new developments in the mobile industry, more and more brands are sending their advertising messages using consumers' mobile phones. This growing interest is reflected in their allocated marketing budgets and expenditures, which shows that digital marketing and especially mobile advertising is booming. Allocations of the resources for various mobile advertising formats reveals that SMS (Short Message Service) advertising is usually ignored as it only accounts for a small portion of this expenditure, while newer approaches such as paid for search and display advertising incur the highest investments. However, new reports such as eMarketer (2016 a) suggest that there is still potential for SMS advertising to foster positive brand-customer relationships. These effects have been largely overlooked by both practitioners and academics as evidenced by the dearth of research on the influence of text messages on brand equity. Thus, this study aims to fill this gap by investigating the effect of SMS advertising on online brand equity.

There is a growing body of the literature recognising the importance of brand equity. However, in terms of online brands, there is still potential for further research on online brand equity and its corresponding dimensions. Subsequently, following a comprehensive review of the literature, this study adopts four dimensions –brand awareness, brand trust, brand value and brand loyalty – to investigate online brand equity. Thus, the present thesis explores the relationship between SMS advertising and dimensions of online brand equity. In particular, the research examines the effect of two factors – namely, attitude toward using SMS advertising and consumers' incentives assessments – on adopted dimensions of CBBE (consumer based brand equity) for online brands; specifically, brand awareness, brand trust, brand value and brand loyalty. Furthermore, this study selects students in the UK as a new cultural context.

Accordingly, this study developed four research objectives and fourteen hypotheses to achieve its aim. The positivist perspective was used to examine the hypotheses. Since the study was aimed at exploring relationships between known variables, a questionnaire was designed using key items from relevant studies and administered to 311 students in the UK. The collected data was analysed for validity and reliability and subsequently, the hypothesised relationships were examined using Smartpls 3.

The findings of the research show that while there are statistically significant relationships between SMS advertising and dimensions of online brand equity, their overall effect on brand equity is limited – except for the influence of incentives assessments on brand loyalty. In

particular, this study showed that attitude toward using SMS advertising has direct and significant relationships with both brand trust and brand awareness. Furthermore, consumers' assessment of the incentives that are included in text messages could affect the brand value and brand loyalty. This research also demonstrates that there are inter-relationships between the identified dimensions of online brand equity i.e. there is a significant relationship between brand value and brand trust. Moreover, the findings show that consumers' gains (benefits) from the text messages (i.e. incentives and information) have a more significant effect on consumers' attitude toward using SMS advertising compared to the sacrifices demanded in the process (i.e. irritativeness and importance of permission).

Thus, despite the fact that some limited studies have examined the effects of SMS advertising on brand equity, this research makes incremental contributions to the mobile advertising and branding research in three ways: First, the previous studies on the factors influencing consumers' attitude toward SMS advertising were mainly conducted before 2010. However, the nature of SMS advertising has since changed significantly i.e. the role of text messages has changed from an entertaining communication medium to a simple informative and reminder of available offers. Hence, this research re-evaluates the strength of previously identified relationships in this regard. Furthermore – applying the expectancy-value theory— this thesis focuses on attitude toward using SMS advertising (attitude toward an act) in comparison to previous research which focused on attitude toward SMS advertising or attitude toward specific text messages (attitude toward an object). Secondly, based on the hierarchy of effects model, the present research examines the inter-relationships between the dimensions of online brand equity—namely, brand awareness, brand trust, brand value and brand loyalty—for pure digital brands. Thirdly, this thesis extends the hierarchy of effects model to determine the possible relationships between SMS advertising and the dimensions of online brand equity.

Chapter 1 - INTRODUCTION

Chapter 1 lays a foundation and provides the objective of the present study. First, background for the research is described. Second, gaps in the research and contexts requiring further research are suggested. Third, the research aim and objectives are established, and the structure of thesis is presented.

1-1 Introduction and Background

Previous studies have recognised brand equity as a source of competitive advantage, a key marketing performance, and an essential factor in business success (Berry, 2000; (Chatzipanagiotou, Veloutsou & Christodoulides, 2016; Christodoulides, Cadogan & Veloutsou, 2015). Although numerous conceptualisations have been posed, one of the most widely used definitions of brand equity is “a set of assets and liabilities linked to a brand, its name and symbol that adds to or subtract from the value provided by a product or service to a firm and/or that firm’s customers” (Aaker 1991, p.15). Using Aaker’s definition, brand equity can thus be viewed from two perspectives. First, brand equity can be considered from a firm’s perspective, referring to the brand’s financial value for the firm, or financial-based brand equity (FBBE) (Simon & Sullivan 1993). Second, brand equity can be seen from the perspective of consumers (Consumer based brand equity (CBBE)), referring to the (additional) value that consumers associate with a brand name compared to unbranded products (Christodoulides et al., 2015; Kamakura & Russell, 1993).

FBBE is concerned with a firm’s revenues generated using brand equity and focuses on factors such as a brand’s market share (Kapferer, 2008). For instance, FBBE measures the additional cash flow accrued to branded products compared with unbranded ones (Simon & Sullivan, 1993). Consumer-based brand equity (CBBE), on the other hand, refers to consumers’ perceptions about the brand (Lassar, Mittal & Sharma, 1995). Such perceptions are then suggested to have an effect on consumer behaviour and decision-making toward the brand

(Anselmsson, Bondesson & Melin, 2016). To elucidate the concept of CBBE, Keller (1993, p.2) defines it as “the differential effect of brand knowledge on consumer response to the marketing of the brand.” Although both perspectives are important, the focus of this thesis is on the latter.

Additionally, reviewing the literature on CBBE reveals that it is a multi-dimensional construct. For example, Aaker (1991) identified brand awareness, perceived quality, brand association, and brand loyalty as brand equity dimensions. Furthermore, Keller (1993) identified brand awareness and brand associations as two dimensions of brand equity. Similarly, this thesis maintains that CBBE is a multidimensional construct.

Furthermore, the significance of differentiating a brand from its competitors is highlighted within an online context (Rana, Bhat & Rani, 2015). Of note and depending on the research context (i.e., whether the research is conducted in an online or offline context), scholars have identified various dimensions for CBBE. For example, Rios & Riquelme (2010) describe brand awareness, trust associations, and brand loyalty as dimensions of online brand equity—as opposed to the dimensions offered by Aaker (1991). Kim et al. (2002) also maintained that creating brand equity in an online context is different from an offline one (in which brands are unique and harder to replicate). Hence, it is important to study the relevant dimensions of brand equity depending on the context of the study. Subsequently, after reviewing the related literature, this thesis identifies brand awareness, brand value, brand trust, and brand loyalty as the dimensions of online brand equity.

Previous studies have recognised various antecedents for CBBE dimensions. Buil, de Chernatony and Martínez (2013a), for instance, showed that advertising and sales promotions could influence the dimensions of brand equity (i.e., brand awareness, brand associations, perceived quality). This influence is in line with other studies that have suggested relationships

exist between advertising and sales promotions and dimensions of brand equity (Aaker, 1991; Cobb-Walgren, Ruble & Donthu, 1995; Keller, 1993). Although the effect of traditional forms of communications, such as television and radio advertising, have been widely studied in the past, the effects of mobile marketing and SMS advertising in particular on online brand equity, have scarcely been investigated to the best of the author's knowledge. Furthermore, a literature review shows that those few studies that examined the relationship between SMS advertising and brand equity (i.e., Smutkupt, Krairit, & Khang, (2012) and Wang & Li (2012)) mainly used traditional (offline) dimensions of brand equity (i.e., the dimensions identified by Aaker (1991)). Therefore, the results of such studies are not validated for online brands and websites. Accordingly, the present research aims to fill this knowledge gap by investigating the relationship between SMS advertising and the dimensions of online brand equity.

The theoretical contributions of studying this gap are: First, with the advancements in internet technology, new businesses and services are developed (i.e., daily deal sites) that provide customers with discounted offers from various retailers. As related markets have experienced dramatic growth during the last five years (Ibisworld, 2016), the brand equity of such services requires further research (Keller, 2016). Therefore, identifying the relevant CBBE dimensions and the related linkages between these dimensions can contribute to theory (by examining online brand equity dimensions in a new online context) and lay the foundations for future studies in this sector.

Second, this thesis uses the hierarchy of effects model developed by Lavidge & Steiner (1961) to propose a new model showing the inter-relationships between dimensions of online brand equity and the effects of SMS advertising on those dimensions. This research model is in line with studies such as Buil et al. (2013a), who used a similar theoretical model for investigating the relationships between dimensions of offline brand equity.

Further, to examine SMS advertising, this study investigates the factors that influence consumer evaluations of SMS advertising based on expectancy value theory (Fishbein & Ajzen, 1975). The potential connections between SMS advertising and its characteristics in connection to online brand equity dimensions are investigated next using the hierarchy of effects model (Lavidge & Steiner 1961). Finally, a new model is presented that both demonstrates how the dimensions of online brand equity are linked to one another and illustrates the factors in SMS advertising that can influence those dimensions.

Conducting new research in SMS advertising is imperative, because despite increasing investments in mobile advertising and communications (IAB, 2015b), the effect of SMS advertising is mostly overlooked (eMarketer 2016c). This negligence is evident from an IAB (2016a) report in which SMS advertising accounted for a small portion of overall advertising spending across the United Kingdom. This fact is important because it shows that the potential of SMS advertising is generally overlooked; eMarketer (2016c), for example, found that only 30% of U.S. retailers use SMS communications, despite the fact that most U.S. retail e-commerce professionals believe that it makes sense for their business to use SMS as a means of communicating to their clients. This problem becomes more obvious in recent reports that show ongoing potential for text messaging. For instance, eMarketer (2016a) revealed that consumers in the United States prefer SMS channels to receive loyalty discounts and offers compared to other mobile applications. Although similar data for consumers in the United Kingdom is not available, the minuscule size of SMS advertising budgets shows that it is widely neglected in this market too – with only around 1% of the digital marketing budget attributed to this purpose (IAB, 2016a). In the next section, the reasons for selecting online brands and SMS advertising are elaborated upon.

1-1-1 Why online brands?

First, this section presents a definition and clarification of a “brand.” Second, it distinguishes between online and offline contexts. Lastly, a justification for studying online brands is made.

The AMA (American Marketing Association) (2016) defines brands as a name, term, symbol, or any other feature that distinguishes goods and services of one vendor from those of other sellers. As signals, brands can help consumers in their decision-making process by allowing them to infer quality and other desired benefits anticipated in situations where they lack experience or cannot make a thorough evaluation (González-Benito, Martos-Partal & San Martín, 2015; Ubilava, Foster, Lusk & Nilsson, 2011). However, for brands to achieve this goal and to influence consumer perception and decision-making, it is necessary to create brand equity (Gonzalez-Benito et al. 2015).

There are differences between online and offline brands. Online brands are present on the internet as digital presence and websites are their primary form of conducting business. Online brands operate differently than offline brands, which are active in brick-and-mortar contexts (also known as offline contexts) and focused on traditional ways of conducting business (i.e., requiring customers to deal directly with their vendors for service). Online brands are active in the electronic commerce (e-commerce) sector, which has been defined as “the process of buying, selling, or exchanging products, services, and information over the internet” (Turban, King, Lee & Viehland, 2006, p.4).

Danaher, Wilson & Davis (2003) suggested that due to the disparity in the type and level of the consumer experience with online and offline brands, the perceptions that are connected to online brands vary from those linked to offline brands. For example, Gonzalez-Benito, et al. (2015) suggested that information in the online environment is even more asymmetric because consumers do not have the opportunity of tasting or touching the products, and they need to

rely more on the brand as a source of information. Accordingly, the potential for brands to provide consumers with information is different in online and offline contexts (Alba et al. 1997).

Hence, Siamagka, Christodoulides, and Michaelidou (2015) maintained that due to the characteristics of the context in which brands are presented, consumer attributes about online brands or online brand perceptions differ from offline brands. The authors describe the differences as largely found at the level of abstraction of associations (i.e., product benefits), the strength of associations, and uniqueness of associations. Subsequently, scholars such as Siamagka et al. (2015), Gonzales-Benito et al. (2015), and Danhaeer et al. (2003) suggested that online brand perception may play a more important role in consumer evaluations and expectations of the product or service attributes and benefits.

After delineating the differences between online and offline brands, three reasons for selecting the online brands for this study are presented:

- (1) The importance of the online context,
- (2) Scholars calling for further inquiries into brand equity in the digital context (i.e., Keller 2016), and
- (3) The highly competitive nature of the selected sector, along with the fact that SMS advertising has been used by selected online brands as a means of communication.

Online brands are chosen over offline brands because of the emergence of new technologies, specifically the internet, that offer new opportunities for brands to interact with consumers. These digital platforms are modifying the ways that business is being conducted and, therefore, new theories and models are required to explain the relationship between various e-commerce elements (Luo 2015; Teece 2010). Branding and brand equity literature, for example, has shown that adopting traditional (offline) methods without examining them in online contexts

can be problematic (Christodoulides, de Chernatony, Furrer, Shiu, & Abimbola, 2006; Rios & Riquelme 2010). Accordingly, this study proposes that the application of previous studies examining the role of SMS advertising on brand equity in traditional environments might be less relevant for digital brands, specifically when developed in other geographical contexts far from the United Kingdom.

The importance of studying online brands and their consequences in the United Kingdom becomes more apparent when one considers that the internet and relevant technologies have significantly changed global branding perspectives and boundaries (Morgan-Thomas & Veloutsou 2013). The growth of the online market shows that websites are not just marginal communication mediums but instead are far more valuable assets than many have realised. In the United Kingdom, for example, e-commerce sales were estimated to be £28.9 billion in 2012, and it is predicted that this number will grow to £58.09 billion by 2018 (Intel 2013). Therefore, if brands want to stay competitive, they need to use fully their online capacities, and to do so, they will need to have better understanding of how online branding works.

The importance of online context has been an inspiration for numerous studies;

- whether the research investigated branding and consumer perception in this environment—i.e., online branding (Ibeh, Luo & Dinnie, 2005; Rowley, 2004; 2009); online brand relationship building (Confos & Davis, 2016); online brand image (Lai, Chong, Ismail & Tong, 2015); factors determining online brand experience (Morgan-Thomas & Veloutsou, 2013); consumer engagement with online communities (Lee, Kim & Kim 2011; Merrilees, 2016);
- or compared the digital context with offline settings as with branding strategies in online and offline contexts (Clauser 2001; Strebing & Treiblmaier, 2004), brand image (Landers, Beatty, Wang & Mothersbaugh, 2015), online and offline brand loyalty (Danaher, et al., 2003);

- or investigated the implications of the online presence for brands, as with e-word of mouth (Groeger & Buttle 2014; Moran, Muzellec & Nolan 2014); online brand reviews (Gensler, Völckner, Egger, Fischbach & Schoder, 2015); online brand experience (Lee & Jeong, 2014); online communities (Hajli, Shanmugam, Papagiannidis, Zahay & Richard, 2017; Jung, Kim & Kim, 2014); website quality (Lee, Hong & Lee, 2004); using digital media for branding (Lipiäinen & Karjaluoto, 2015); and online sales promotions and discounts (Crespo-Almendros & Del Barrio-García, 2016).

Despite the fact that previous studies have addressed various aspects of branding in the digital context when it comes to brand equity, there is still a need for further research (Keller, 2016; Rana, et al. 2015; Rios & Riquelme, 2010; Siamagka, et al. 2015). Keller (2016) explained that there is still a gap in the knowledge investigating branding, brand building, and managing brand equity in the online context. For example, Keller called for further research on consumers' decision journey for online brands and how brands can create value in this context. In addition, another area that Keller suggested requires further examination is pricing power and consumer switching behaviour for online brands. The effect of pricing power and financial benefits that online brands can offer to consumers has been overlooked in branding equations (Keller, 2016). Subsequently, it is important to understand how readily-available discount brands influence consumer loyalty and switching behaviour (Keller, 2016). Hence, selecting online brands as the context of this thesis can contribute to knowledge by addressing such research gaps.

E-commerce has experienced a growth both from the number of users and their market value (eMarketer 2016e). This growth has placed some online brands among the most valuable one hundred brands in the world (Interbrand 2014). One of the sectors that has seen dramatic growth over the last five years is the daily deal sites (Ibisworld 2016). For example, in just six months during 2012, UK. consumers spent about £300 million in this sector (Thedrum 2012).

Furthermore, in the United States, revenue in this market grew from \$1.8 billion in 2011 to \$5.5 billion in 2016 (Statista 2016).

Deal-of-the-day websites (also known as daily deal sites) are the online services that provide consumers with vouchers and price discounts for restaurants, events, and a wide array of services (Drossos et al., 2015; Byers et al., 2012). Cai, Mahdian, Mehta & Waggoner (2013) distinguished between the models of advertising in daily deal sites and other platforms such as TV or search engine advertising. Cai et al. (2013) explained that – in the latter – the advertisements are shown next to the main content; in contrast – in daily deal sites – the promotions and coupons are the main content. To elaborate this market, Boon (2013, p.843) defines daily deal sites as being “an e-commerce business model that offers consumers heavily-discounted deals on a regular (daily) basis, and gives merchants access to a mailing list of potential new customers in exchange for a commission.”

Despite the initial growth, with increasing competition and market maturity in this sector (Ibisworld 2016), the need for a competitive advantage becomes obvious. Considering the advantages of CBBE as a source of competitive advantage, the importance of brand equity in this market becomes even more important.

Therefore, investigating this market can be beneficial from two perspectives. First, to understand the dimensions of online brand equity (and their inter-relationships) for online discount brands can be insightful, as suggested by Keller (2016). Second, with new brands coming on the market, coupled with the difficulties that deal-of-the-day websites have in acquiring new customers, the findings of this research should help in understanding what factors in SMS advertising will most impact their CBBE.

When it came to the selection of the online brands for this study, it should be noted that they are loyalty programs that are active in the daily deal sites market. The present research adopts

the conceptualisation of loyalty programs (LP) from Leenheer, van Heerde, Bijmolt, & Smidts, (2007, p.32) who defined them as “an integrated system of marketing actions that aims to make member customers more loyal”. Melnyk & Bijmolt (2015) further explained that the main purpose of an LP is to create and enhance consumer loyalty. Hence, online brands in this thesis use SMS advertising as a communication medium to present deals to their customers to enhance brand loyalty. They provide their customers with deals from over three thousand brands in the United Kingdom. Based on an eMarketer (2016a) report, customers prefer to receive loyalty messages via SMS rather than other mobile applications. Therefore, the outcomes can determine whether using older advertising methods, such as SMS advertising, can influence the dimensions of online brand equity.

1-1-2 Why SMS advertising?

Marketing communications have significantly changed in recent years (Keller, 2009). Due to expanding mobile markets and increasing interest in mobile applications (also known as apps), firms are focusing more on digital and mobile advertising. Hence, this section starts by defining mobile marketing and SMS advertising. Next, statistics regarding the market expansion in this sector are presented. Finally, the potential of SMS advertising is proposed. Andrews, et al. (2012, p. 357) defined mobile marketing as “any form of marketing communication delivered to a mobile phone,” and Shankar & Balasubramanian (2009, p.118) defined this concept as “the two-way or multi-way communication and promotion of an offer between a firm and its customers using a mobile medium, device, or technology.” Furthermore, Mobile marketing association (2007, p.6) defines mobile marketing as “the use of wireless media as an integrated content delivery and direct-response vehicle within a cross-media marketing communications program.” Hence, mobile marketing is a broad platform that may include activities such as mobile display/search advertising (Bart et al., 2014), mobile coupons (Hofacker et al., 2016), and mobile customer services (Shankar et al., 2010).

The emergence of text messaging dates to 1992 when Neil Papworth sent a message from his computer to Vodafone's Technical Director, Richard Jarvis, thus founding the new experience of text messaging (Mobile Data Association 2013). However, the full potential of SMS advertising was not tapped until 1998, when mobile service providers in the United Kingdom could offer fuller service to their customers; before then, this service was only available to customers within the same network (Mobile Data Association 2013). Although mobile marketing incorporates a vast number of marketing activities, the focus of this study is on SMS advertising (also known as text message advertising), which is a form of mobile marketing (Dix et al., 2016; Varnali, 2014; Zhang & Mao, 2008). Text message advertising is conceptualised as permission-based SMS advertising messages that are focused on sending advertisements and promotional text messages (including direct-response advertising messages) to a brand's customers.

After conceptualising mobile marketing and SMS advertising, it is important to know how the digital advertising market is evolving and, subsequently, mobile marketing and SMS advertising markets. A new research report from IAB (2016a) shows that digital advertising in the United Kingdom was worth £8.606 billion in 2015, up 16.4% from 2014 (£7.33 billion). Considering that digital advertising was worth £825 million in 2004 (IAB 2016b), it shows growth of over 1,000%. Similarly, mobile advertising as part of digital advertising has been growing, too. For example, mobile advertising spending grew from £1.625 billion in 2014 (IAB 2015) to £2.627 billion in 2015 (IAB 2016a). This steady growth shows that marketers appreciate the importance of mobile communications now more than ever. However, a closer look at mobile advertising spending in the United Kingdom shows that paid search and display advertising are the highest contributors to this sector (IAB 2016a). Furthermore, the share of SMS advertising is minimal (IAB 2016a), which suggests that SMS advertising is not receiving enough attention as a communication medium in the United Kingdom. Therefore,

understanding its advantages and the factors that influence consumer evaluations of SMS advertising messages can be insightful for both academic and practical purposes.

Using SMS advertising is advantageous because:

- It is applicable for both smartphones and basic phones. Although more people now possess a smartphone, some still own a basic mobile phone. Hence, the capability of text messages to operate on both types of mobile phones enables advertisers to target both groups of customers. This type compares favourably to mobile applications that are only available for smartphones such as Facebook instant messaging (Varley 2014).
- SMS has a fast response rate. As mobile phones are personal property, consumers tend to carry their mobile phones with them most of the time. Therefore, SMS messages on average are responded to within ninety seconds (Varley 2014).
- SMS messages have a high open-rate. While only 20% of marketing emails are opened, 98% of all SMS messages are looked at by recipients. Similarly, when it comes to social media advertising, only 29% of the tweets and 12% of the Facebook messages are read, which is far less than SMS advertising (Varley 2014). This gap between opening rates is understandable. While it is tough for consumers to ignore text messages due to the high number of social media posts that a person receives, consumers just might scroll past them more easily (Varley, 2014).
- SMS has a high potential for loyalty programs. Varley (2014) and Warc (2016) claimed that the majority of consumers would be happy to receive loyalty benefits via SMS compared to other methods such as traditional coupons. This finding is in line with eMarketer (2016a), which showed that SMS was the preferred method (in comparison with direct mail, app notification, and email) for receiving loyalty updates among consumers in the United States. This preference can be attributed to the easiness of opting into SMS campaigns, and the fact that it is compatible with most of the mobile

phones and consumers do not need to download any applications (eMarketer 2016a).

In fact, 70% of the respondents in a study conducted by 3Cinteractive claimed that they did not sign up for a loyalty program because of the inconvenience involved in registering (Warc, 2016).

Despite the advantages of using SMS as a communication channel, it is widely ignored. For example, a majority of consumers have not received text messages from their favourite brands, showing that businesses are missing this huge market (*Digital Marketing Magazine*, 2014). Similarly, eMarketer (2016c) showed that only 30% of U.S. retailers use SMS to communicate with their customers. Furthermore, in the United Kingdom, SMS only comprises 1% of the mobile advertising budget (IAB 2016a). Although the introduction of smartphones and the creation of new mobile applications have caused the number of text messages being sent to decline, there is still potential for this form of advertising. Therefore, it is necessary to find out whether SMS-related activities (e.g., SMS advertising) have any significant influence on brand equity.

However, not all brands have been uninformed about the importance of SMS advertising. There are global brands that have tapped into the potential of SMS advertising in various market sectors, as with opt-in SMS campaigns for loyalty programs such as Orange and Turkcell (McIntosh 2013); restaurants and food services such as Papa John's, Dunkin' Donuts, and Subway; sports events such as Silverstone and Turner Sports; fashion retailers such as H&M and Avenue Stores; cosmetic retailers such as Julep and Kiehl; and non-profit organisations such as Red Cross (Johnson 2014).

1-1-3 Text message advertising in the United Kingdom

The United Kingdom was selected as the context for this study for four reasons. First, the ubiquity of the internet in the United Kingdom makes it a relevant context to conduct a study on online brands. According to Ofcom (2016), nine out of ten respondents in the United

Kingdom claimed that they use the internet either at home or elsewhere. Second, as loyalty programs are prevalent in the United Kingdom, eMarketer (2016c), as one example, claimed that 81% of the respondents in the United Kingdom subscribed to at least one loyalty program. Furthermore, the fact that online brands in this research are loyalty programs, which are supposed to provide consumers with incentives and information, justifies selecting the United Kingdom. Third, reviewing mobile advertising expenditure in the United Kingdom reveals that the importance of SMS advertising has been overlooked, as less than 1% of the budget is allocated for SMS advertising purposes (IAB, 2015). Fourth, this context is sensible and feasible due to the research costs and time constraints.

1-1-4 Selecting students

To investigate the effect of SMS advertising on dimensions of online brand equity, this thesis suggests that it is beneficial to conduct the research among students for two main reasons. First, younger consumers are more likely to get involved in online activities such as online shopping (Ofcom 2013), and their decision-making is more prone to be influenced by loyalty programs (eMarketer 2016b). In addition, based on the reports from the target online brands, younger consumers are more likely to be registered with loyalty programs. Subsequently, as brands in this study are active in the online environment, along with the fact that they are purposed to improve brand loyalty, it is justifiable to select younger consumer groups for the purpose of this study.

Second, the data suggest that younger consumers are also savvier in SMS communications. For example, Ofcom (2012) showed that nine out of ten respondents 16-24 years use SMS as one of their main means of communication. Hence, the younger age groups have sufficient expertise for this study.

Therefore, as students enrolled in universities are normally classified as young consumers, it is maintained that conducting the research for this group is justifiable. Furthermore, previous

studies such as Aaker & Keller (1990) and Martinez & de Chernatony (2004) likewise used a student sample for branding studies.

1-2 Research Problems

After reviewing brand equity and SMS advertising, it is suggested that new research to investigate the effects of SMS advertising on online brand equity would be beneficial in two ways. First, as demonstrated in previous studies, consumer attitude is an important concept because it can work as a mediator of advertising effectiveness (Mackenzie et al., 1986). Also, it is the core construct of theories that examine consumer acceptance of an act (or phenomenon), such as the theory of reasoned action (TRA) (Fishbein & Ajzen, 1975), theory of planned behaviour (TPB) (Ajzen, 1991), and technology acceptance model (TAM) (Davis, 1989). Hence, by identifying the factors that have the highest effects on consumer attitudes toward using SMS advertising – based on expectancy-value theory—this research can be useful for both practitioners and academics. Practitioners can take advantage of the findings by developing SMS advertising campaigns that are more acceptable to consumers. Also, from a theoretical point of view, the outcomes of this research can be useful, as suggested by scholars like Varnali (2014) who called for further investigations into SMS advertising, and since most of the research in this area was done between 1998 and 2010. The nature of SMS advertising has changed since then. For example, SMS used to be applied to entertainment and for gaming purposes, and with new improvements in technology, other mobile applications can be utilised more effectively to create entertainment. Therefore, because the nature of SMS advertisement has changed, it is plausible that the importance of the antecedents of consumer attitudes toward using SMS advertising has also changed since that period. Accordingly – by adopting expectancy-value theory—this research investigates the influential factors in determining consumer attitudes toward using SMS advertising.

Moreover, while the majority of the studies either investigated the effect of a single text message on consumer attitudes toward the SMS (Drossos et al., 2007; 2013; Varnali, 2014) or factors that affect consumers' attitudes toward SMS advertising in general (Aslam et al. 2016; Haghirian et al. 2005; Tsang et al. 2004), a few studies focused on consumer attitudes toward using SMS advertising after they had opted into those campaigns. In this research, attitudes toward using SMS advertising is defined as "an individual's summary evaluations of using SMS advertising." Furthermore, it is suggested that this construct is important because it is more likely to determine consumer efforts in utilising SMS advertising campaigns and, therefore, it is a better construct to measure the effectiveness of advertising through this medium and its possible consequences.

Secondly, this study aims to shed light on the potential connections between SMS advertising and dimensions of online brand equity. Hence, by using the hierarchy of effects model, this thesis investigates the links between various dimensions of specified online brand equity. In addition, it explores whether there are any connections between SMS advertising and online brand equity dimensions, in other words, whether using SMS advertising has any implications for online brands. The links between two constructs of SMS advertising—namely attitude toward using SMS advertising and incentives assessments—and four dimensions of online brand equity (i.e., brand name awareness, brand trust, brand value, and brand loyalty) are statistically measured to examine these relationships. It should be noted that incentives assessments are selected, along with attitude toward using SMS advertising, due to the nature of the online brands since they are supposed to improve consumer loyalty. Therefore, it is possible to assume that the incentives provided by using SMS advertising might affect their brand value and loyalty. In this thesis, incentives assessments are conceptualised regarding consumers' overall assessments of promotional offers, which is congruent with Darke & Chung (2005).

The findings contribute to existing marketing theory by responding to scholars such as Keller (2016), who invited further research about discount brands and showed correlations between the dimensions of online brand equity in that sector. Furthermore, a new model is developed based on expectancy-value theory and the hierarchy of effects model, which demonstrates associations between SMS advertising and certain dimensions of online brand equity. This model can be beneficial for practitioners as it demonstrates to brand managers the potential of SMS advertising for brand building activities.

1-3 Research Objectives

This thesis intends to address the influence of SMS advertising on dimensions of online brand equity. While the topic is studied to some extent for offline brands in countries other than the United Kingdom (i.e., Smutkupt et al., 2012), the influence of SMS advertising on dimensions of online brand equity in the United Kingdom has never been studied. As explained in previous sections, this is a significant gap, both from SMS advertising and online brand equity perspectives. Therefore, the central aims of the research can be specified as follows:

This research aims to explore whether any statistically significant relationships exist between SMS advertising and dimensions of online brand equity among university students in the United Kingdom.

The following objectives are proposed to accomplish this research aim:

- To identify the cognitive beliefs that influence students' attitudes toward using SMS advertising in the UK.
- To identify and examine the interrelationships between dimensions of CBBE for online brands.
- To determine the relationship between attitudes toward using SMS advertising and the CBBE dimensions of online brands.

- To determine the relationship between incentives assessments included in SMS advertising messages and the CBBE dimensions of online brands.

Accordingly, this study develops a new model based on previous literature and examines the hypothetical relationships between the relevant constructs. To fulfil the research objectives, a comprehensive literature review is required. Therefore, by reviewing the literature on SMS advertising, brand equity, and online brand equity, the underlying factors influencing attitude toward using SMS advertising and dimensions of online brand equity are identified. Accordingly, the hypotheses and a theoretical model are developed using the hierarchy of effects model. The model is then evaluated using primary data collected from students in the United Kingdom, and the research objectives are, respectively, addressed.

In summary, in this background section, the importance of studying the influence of SMS advertising on dimensions of online brand equity in the United Kingdom was clarified. Subsequently, the research aim was established, and four research objectives were thus developed.

1-4 Thesis structure

This thesis consists of seven chapters. The first chapter (Introduction) provided an overview of the topics and highlighted the significance of the study.

1-4-1 Chapter Two – Literature review

Chapter 2 provides an extensive review of the literature that covers concepts necessary to addressing the research objectives, including brand equity, online brand equity, differences between dimensions of brand equity in online and offline contexts, mobile marketing, and SMS advertising. The research gaps and contributions to associated knowledge are also highlighted in this chapter.

1-4-2 Chapter Three – Conceptualization and research hypothesis

In Chapter 3, previous literature is integrated to form a new conceptual framework and relevant hypotheses. The proposed framework is comprised of four sections. The first section includes the components of SMS advertising, as well as the influential factors in consumer attitudes toward using SMS advertising. The second part of the framework focuses on the dimensions of online brand equity and the hierarchy of effects between them. The third part focuses on the relationship between attitude toward SMS advertising and two dimensions of online brand equity: brand awareness and brand trust. Finally, the fourth part concentrates on the influence of incentives assessments on the online brand equity dimensions.

1-4-3 Chapter Four – Methodology

Chapter 4 begins by discussing research paradigms and justifies the approach and starting point of this study. Interpretivist and positivist views are clarified, and reasons are given for selecting the positivist approach as an underlying paradigm to conduct the research. Consequently, it is shown how data will be collected and what quantitative approaches will be adopted. Furthermore, the research design is developed, and the sampling procedure is clarified. Justifications for selecting university students as a sample population are also provided. In the final section of this chapter, a brief explanation is given regarding how measurement reliability and validity is assessed.

1-4-4 Chapter Five – Data analysis

Chapter 5 is formed around the analysis of the collected data. Confirmatory factor analysis will be conducted using SPSS v 20 and Smarts 3.0. Furthermore, path analysis will be carried out using variance-based structural evaluation (Smartpls 3.0), and the significance of the proposed relationships and theoretical model will be examined.

1-4-5 Chapter Six – Discussions of findings

The results of the data analysis are explained in Chapter 6. The underlying reasons and theories for the attained results are given by referring to the literature.

1-4-6 Chapter Seven – Conclusions

Chapter 7 draws conclusions from previous chapters. The theoretical and practical implications of the study are clarified, as well as delineating the limitations of the research. Furthermore, suggestions for future study are presented.

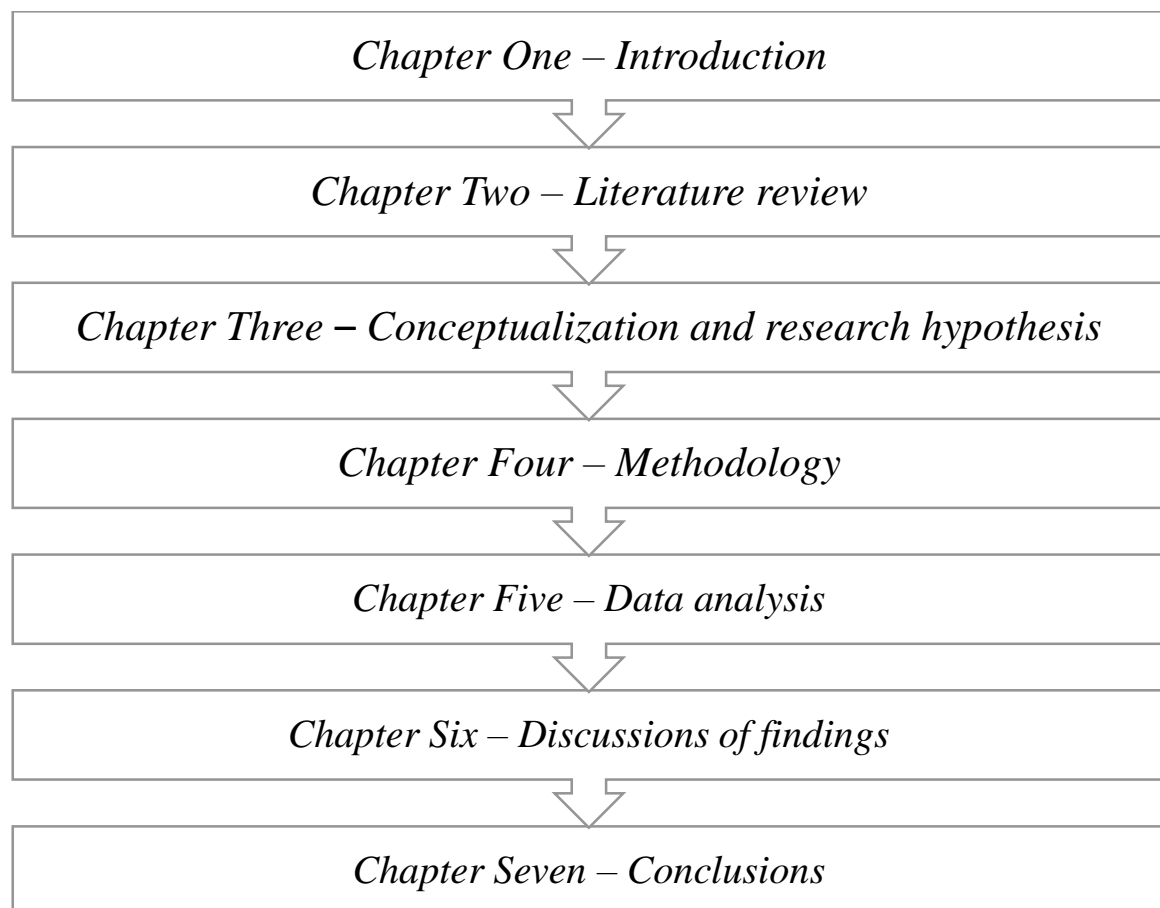


Figure 1-1 Layout of the thesis

Chapter 2 - LITERATURE REVIEW

2-1 Introduction

The purpose of this chapter is to review the existing literature on brand equity and SMS advertising and to explain their interrelationships as well as identify gaps in the literature. In addition, this chapter identifies and conceptualises the constructs that form the theoretical framework for this study. It starts with a review of the literature on brand equity, highlighting relevant definitions and the features of brand equity. Furthermore, it explains how previous studies have attributed various dimensions to consumer based brand equity and explores the multi-dimensional nature of the construct. Accordingly, the dimensions of brand equity in offline (traditional context) and online contexts such as brand awareness, brand associations, perceived quality, and brand loyalty are explained and discussed (Aaker's, 1991).

Previous studies have shown that there are differences between brand equity in the online and offline environments and the dimensions of consumer based brand equity (CBBE) vary accordingly within each context. Subsequently, a rationale and justifications for the selection of the online dimensions for the purpose of this research are provided.

The second part of the review chapter explains the effects of brand communications and advertising on brand equity. Furthermore, it clarifies the influential role of SMS advertising (as a form of communications) on the brand equity dimensions. In this section, the importance of SMS advertising is highlighted, the advantages and disadvantages explained and the relationship between mobile marketing and SMS advertising is discussed.



Literature review

Brand equity

- Brand equity introduction
- Advantages of brand equity
- Perspectives of brand equity
- Brand Awareness
- Perceived quality
- Brand loyalty
- Brand Associations

Online brand equity

- Distinctions between online and offline brand equity
- Development of online brand equity
- Brand value
- Brand Trust

Influence of SMS advertising on consumer based brand equity

- SMS (Short message services) Advertising
- Objectives of using SMS advertising
- *Advantages of Text message advertising*
- Disadvantages and limitations of text message advertising

Conclusion

Figure 2-1 Literature Review Structure

2-2 Brand equity

2-2-1 Brand equity introduction

The significance of the concept of brand equity is highlighted in both academia and practice (Baalbaki & Guzman, 2016; Kapferer, 2008; Londono, Elms, & Davies, 2016). Buil et al. (2013a, p.63) identified it as a “core concept in marketing.” Likewise, Davcik et al. (2015, p.5) referred to it as a “key strategic assets for organizations.” Previous researchers considered brand equity as a multidimensional construct and numerous dimensions of brand equity have been identified, and measured in various contexts (Ambler, 2003; Mackay, 2001a; Christodoulides and de Chernatony, 2010; Molinillo, Ekinci, & Japutra, 2015). Brand equity can be viewed from different perspectives such as financial based brand equity (FBBE), consumer based brand equity (CBBE), and the comprehensive approach, however, the focus of this thesis is on CBBE. Accordingly, this chapter reviews the brand equity literature to justify the present study’s adopted definition, perspectives, sources, and dimensions of brand equity.

Marketing Science Institute (MSI) defines brand equity as:

“a set of associations and behaviours on the part of a brand’s consumers, channel members and parent Corporation that enables a brand to earn greater volume or greater margins than it could without the brand name and, in addition, provides a strong, sustainable and differential advantage” (Srivastava and Shocker, 1991, p.5).

Based on this definition, brand equity could be viewed as the meaning and value ascribed to a brand by consumers and other stakeholders (Ambler, 2003). A frequently cited definition of brand equity advanced by Farquhar (1989, p.47) views it as “the added value endowed by the brand to the product.” This value is derived from long-term investments in the creation of sustainable and differential advantages in a given brand over its competitors (Doyle, 1990). In a similar vein, Ailawadi, Lehmann, & Neslin, (2003, p.1) defined brand equity as “ the

marketing effects or outcomes that accrue to a product with its brand name compared with those that would accrue if the same product did not have the brand name”. The distinction created by strong brand equity allows for successful brand extensions and leads to greater consumers’ resilience (or retention) against competitors’ communications and new market entrants (Farquhar, 1989). In the next section, the advantages of brand equity are elaborated.

2-2-2 Advantages of brand equity

In order to understand the value of brand equity, it is essential to outline its advantages for firms and its application in the measurement of marketing performance. It is noteworthy that measuring the overall impact of marketing activities on performance has been a long-standing problem in marketing research and practice (O’Sullivan & Abela 2007). Reynolds & Phillips (2005) noted that brand equity helps in the understanding of the objectives, mechanisms and holistic impact of marketing activities. Furthermore, the use of brand equity as a measure of marketing and brand performance is supported in previous studies such as Chatzipanagiotou et al. (2016), Keller (1993) and de Chernatony, Harris, & Christodoulides, (2004).

One strategic advantage of brand equity is its application in the differentiation of brands from their competitors and for the creation of sustainable competitive advantage (Christodoulides, Cadogan, & Veloutsou, 2015; Yoo, Donthu, & Lee, 2000). While it might be easy to copy the physical and financial asset of a product or service, intangible assets such as brand equity are more sustainable partly because they are quite difficult to emulate (Hunt & Morgan 1995). In turn, this differentiation can be used as a source of competitive advantage (Chatzipanagiotou et al., 2016; Christodoulides et al., 2015; Farquhar, 1989; Morgan & Hunt, 1994). Competitive advantage increases the chance of success of marketing practices such as brand extensions (Aaker & Keller, 1990; Farquhar, 1989; Rangaswamy et al., 1993) and brands communication while reducing the effectiveness of competitor’s promotional activities (Farquhar, 1989; Leone

et al., 2006). High brand equity also provides firms with stronger negotiation and bargaining power, which in turn, reduces the cost of distribution (Leone et al., 2006), increases shareholder's value (Kerin & Sethuraman, 1998) and creates a long-term profitable relationship with consumers (Christodoulides & de Chernatony, 2010). Consequently, understanding this construct comprehensively would enable firms to allocate enough resources towards its development and create market entry barriers for competitors while increasing own brand sales and overall cash flow (Farquhar, 1989; Yoo, Donthu, & Lee, 2000).

It has also been proven that brand equity reduces consumers' perceived risks associated with products and services (Erdem & Swait, 1998; Leone et al., 2006). High brand equity also increases the perception of products' quality and performance (Leone et al., 2006, Dodds et al., 1991) and directly impacts consumers' brand preferences and purchase intentions (Cobb-Walgren et al., 1995; Keller, 2001; Leone et al., 2006).

While there is a considerable support in previous studies for the importance of brand equity, there are also opposing views that question the significance of this construct (see Mitchell 1992). However, there appears to be a strong support for brand equity across a range of previous studies. Cobb-Walgren et al. (1995) for example found that higher brand equity results in higher consumers' preference of the brand and subsequently influences their intentions to purchase the brand. Similarly, Leone et al. (2006) explained that the power of brands exists in the mind of consumers' and brand equity can be considered as the added value of the brand which is manifested through consumers thoughts, words, and actions towards a brand. Firms, in turn, can use these added values to generate more sales and profits. After emphasising the importance of brand equity, the next section identifies various perspectives on brand equity and delineates this concept in the context of this research.

2-2-3 Perspectives of brand equity and definitions of consumer based brand equity

One of the most important and frequently cited conceptualisation of brand equity was put forward by Aaker (1991, p. 15) who defined it as “a set of assets and liabilities linked to a brand, its name and symbol, that add to or subtract from the value provided by a product or service to a firm and/or that firm’s customers”. Referring to this definition, researchers generally identify two main recipients of brand value, namely: customers (consumer based brand equity) and firms (Financial based brand equity) (Kamakura & Russell, 1993). Financial based brand equity (FBBE) focuses on the financial value of the brand which is measured using factors such as market share (Kapferer, 2008) and brand assets (Feldwick, 1996).

In addition to these two perspectives, brand equity is also viewed from the perspective of the value of a brand to other stakeholders (Baalbaki and Guzman, 2016). For instance, the value of a brand to internal (e.g. employees) and external (e.g. channel members) stakeholder groups (Christodoulides et al., 2015) as well as, the value of a brand in predicting consumers’ choice and market share power (sales based brand equity (SBBE)) (Datta, Ailawadi & van Heerde, 2016-in press).

However, the focus of this thesis is on consumer based brand equity, hence, methodologies used by companies based on financial factors and brand attributed sales such as Brand finance, Ersnt & Young and Interbrand are beyond the scope of this research. For instance, Brand Finance (2017, para.1) evaluates brands based on “the net present value of the estimated future cash flows attributable to the Brand.” Furthermore, Interbrand (2015) has a methodology to measure a brand’s cumulative values, comprising of three attributes:

- “The financial performance of the branded products and services.
- The role the brand plays in influencing customer choice.

- The strength the brand has to command a premium price or secure earnings for the company.” (Interbrand, 2015, methodology, para. 2)

While it is important to measure brand equity from a firm’s point of view, it is crucial to understand the actual driving factors that create financial based brand equity (FBBE) and cash flows (Christodoulides & de Chernatony, 2010). Dyson, Farr and Hollis (1996), Lassar et al. (1995) and Raithel, Taylor & Hock (2016) identified consumer based brand equity (CBBE) as an influential factor that results in a firms’ financial improvements.

Consumer based brand equity (CBBE) focuses on the value of a brand in the minds of consumers. It is regarded as a type of customers’ brand perception and association that drives their behaviour and results in financial value for firms (Anselmsson et al., 2014; 2016). Kim et al. (2003), for example, examined the relationships between luxury hotels’ financial performance and the dimensions of consumer based brand equity and found that there a strong direct link between the two. This relationship stems from the fact as consumers develop direct interactions and experiences with a brand, they become more aware of the brand and form perceptions and images about it (Kim, Kim, & An, 2003). Such perceptions further influence consumers’ purchasing behaviours, which eventually translate into the value of the firm (Aaker, 1996; Dyson, et al., 1996; Kamakura & Rusell, 1991; Lassar et al., 1995; Park & Srinivasan, 1994; Raithel et al., 2016).

The associations and perceptions on brand quality that are formed in consumers’ minds and the level of consumers’ loyalty to a brand, influences their buying behaviour and consequently, firms’s financial performance (Kim et al., 2003; Raithel et al., 2016). In the same vein, it has been proposed that “There is value to the investor, the manufacturer and the retailer only if there is value for the consumer” (Cobb-Walgren et al., 1995, p. 26). Accordingly, this research is concerned with the consumer based brand equity and focuses on the dimensions and

associations in consumers' minds rather than financial performance and market analysis of brands.

It is noteworthy that consumer based brand equity (CBBE) is viewed from two perspectives by branding scholars, namely, the information economics viewpoint (Erdem & Swait, 1998) and memory structure theories in branding (Christodoulides & de Chernatony, 2010). With regards to the former, Erdem and Swait (1998, p.139) identified brand names as signals for economic agents and demonstrated that trustworthy and credible signals help consumers in their decision making by increasing perceived quality, reducing perceived risk, reducing information search costs and increasing consumers' expected utility. Consequently, they defined brand equity in terms of the value that consumers attribute to a brand signal (Erdem & Swait, 1998). Brands as signals can affect consumers' decision making due to the "imperfect and asymmetric information" which consumers have about product/service markets (Erdem, Swait, & Valenzuela, 2006). For example, when a risk averse consumer decides whether or not to purchase a risky product, brand signals can help them in assessing quality and therefore, brands function as a source of quality guarantee. In such situations, brands can help consumers to save time and effort (costs) in assessing available products and thus, increase the utility of the brand (Erdem et al., 2006).

From the perspective of memory structure theories, Keller (2003) conceptualises consumer based brand equity from the individual consumer's point of view and explains that CBBE occurs when an individual has knowledge about the brand. He proposed that the power of the brand resides in the consumer's mind and the strength of the brand depends on whether they make positive or negative associations to the brand (Keller, 1993). In order to distinguish between brand equity and brand knowledge, Keller (1993) used the associative structure memory model. In this model, human memory is described as "a network consisting of various nodes connected by associative links" (Till and Shimp, 1998, p.68). Accordingly, each node is

considered as a source of information to consumers' minds and activates linked associations when stimulated (Collins & Loftus, 1975). By applying the memory structure and associative models in consumer based brand equity theories, Keller proposed that brand knowledge is formed from nodes and associations linked to the nodes formed by human memory. Each node is established when consumers become aware of a brand (awareness) and form images and associations (i.e. quality, safety etc.) (Keller, 1993).

These associations and images can emerge from consumer's experiences with brands but also from accompanying marketing activities (Hoeffler and Keller, 2002). However, not all the associations are considered effective for increasing (decreasing) the brand equity, and only "strong, favourable and unique" associations are significant (Keller, 1993). Keller defines consumer based brand equity as "the differential effect of brand knowledge on consumer response to the marketing of that brand" (Keller, 1993, p.2). Based on this definition, the associations should be strong enough to make the difference in the marketing of the product. However, the main challenge for marketers is creating the right experiences, feelings, thoughts, perceptions and beliefs toward their brands using their services, products and branding (Hoeffler and Keller, 2002). Keller's (1993) views on brand equity are similar to Ambler's (1992) view in the sense that both authors agree that brand equity is formed in the mind of consumers.

Consumer based brand equity (CBBE) refers to the consumers' perceptions about brands rather than any objective measures, (i.e. when a customer compares brand A with brand B, it is the customer's perceptions that forms CBBE in his/her mind not the actual objective differences between brands A and B) (Lassar et al., 1995). This is in line with Keller's (2003) view that brand equity is a result of the awareness and associations made in consumers' minds. Similarly, brand equity is also derived from the value accrued as a result of a brand's name and other associated physical aspects of the product or service (Kamakura and Russell, 1991; Lassar et

al., 1995). Since consumer based brand equity is perceptual, it can be influenced by competitors' activities (i.e. communications), thus CBBE is more accurately conceptualised as a variable construct (Lassar et al., 1995).

Accordingly, Lassar et al. (1995, p.13) defined consumer based brand equity as “the enhancement in the perceived utility and desirability a brand name confers on a product” and explained that CBBE is the customers' perceived overall superiority of a given brand name in comparison to other brands. Vazquez et al. (2002, p.28) described CBBE as “the overall utility that the consumer associates with the use and consumption of the brand, including associations expressing both functional and symbolic utilities.” In a similar vein, Kamakura and Russell (1993, p.10) defined brand equity as “the implied utility or value assigned to a brand by consumers.” In addition, Christodoulides and de Chernatony (2010, p.48) defined consumer based brand equity as “a set of perceptions, attitudes, knowledge and behaviours on the part of consumers that results in increased utility and allows a brand to earn greater volume or greater margins than it could without the brand name”.

The majority of previous research on CBBE have conceptualised it as a multidimensional construct (Baalbaki and Guzman, 2016; Çifci et al., 2016; Christodoulides et al., 2015; Davcik et al., 2015; Datta et al., 2016- in press; Londono et al., 2016; Tasci, Hahm, & Breiter-Terry, 2016-in press). However, despite the extensive body of research on brand equity, there are still different views on the dimensions of brand equity (Christodoulides et al., 2015; Christodoulides and de Chernatony, 2010; Mackay, 2001b; Veloutsou et al., 2013). Keller (1993) for example, proposed that consumer based brand equity is multidimensional and comprises of two dimensions, namely; brand awareness and image. Aaker (1991) on the other hand, identified brand awareness, perceived quality, brand loyalty, brand associations/differentiations, and other proprietary brand assets such as patents, trademarks, and channel relationships as dimensions of brand equity. While the first four dimensions

(namely brand awareness, associations, perceived quality and brand loyalty) deal with consumers knowledge (Christodoulides et al., 2015; Pappu et al., 2005), the fifth dimension (other proprietary brand) deals with the managerial aspects of brand equity. Table 2-1 shows the various dimensions of brand equity as proposed by researchers in their conceptualisations or measurements of this construct.

Aaker's (1991) proposed definition of consumer based brand equity is considered as one of the most comprehensive definitions by some researchers (Pappu, Quester, & Cooksey, 2005). Scholars such as Cifci et al. (2016), Cobb Walgren et al. (1995), Londono et al. (2016), Yoo and Donthu, (2001; 2002), Yoo et al. (2000), and Washburn & Plank (2002) developed their concept of brand equity in parallel to Aaker's (1991) and Keller's (1993) conceptualisations (Pappu et al., 2005).

Research	Brand equity definition, Conceptualization / Measurement context	Brand equity dimensions
Aaker (1991)	"a set of assets and liabilities linked to a brand, its name and symbol that add to or subtract from the value provided by a product or service to a firm and/or that firm's customers" (p. 15). The definition is conceptual and no specific context was chosen.	Brand awareness, Brand associations, Brand loyalty, Perceived quality, other priority assets
Blackston (1992)	Based on the concept of incremental added value, Blackston (1992) argued that consumers are partners with brands in the creation of values and represents consumers' ideas that form the CBBE. Therefore, brand equity is formed as a result of the relationship between the consumer and the brand.	Brand relationship
Keller (1993, p.2)	"The differential effect of brand knowledge on consumer response to the marketing of the brand".	Brand knowledge (Brand awareness, Brand associations)
Cobb-Walgren et al. (1995)	Three dimensions of brand equity proposed here were the accepted as dimensions by both Keller (1993) and Aaker (1991). Cobb-Walgren et al. (1995) applied the model to measure brand equity indirectly in both products (household cleaners) and Services (Hotels) markets	Brand awareness, Perceived quality, Brand associations

Lassar et al. (1995, p.13)	Defines brand equity as “the enhancement in the perceived utility and desirability a brand name confers on a product” and proposed that consumer based brand equity is the “overall superiority” of a product carrying the brand name in comparison to products with other brands.	Brand Performance, Social image, Commitment, Value, Trustworthiness, Attachment
Sharp (1995)	Concentrating on services, Sharp (1995) explained that the factors that influence brand equity are different in product and service markets, due to the nature of the services. Sharp (1995) demonstrated that intangible assets (brand equity dimensions) could increase the value of the market shares. Therefore, they can create value for brands.	Company/Brand awareness, Brand image, Relationship with customer/existing customer franchise
Berry (2000)	CBBE is considered as the consumers’ view about the future satisfaction derived from using the brand (Berry, 2000). This view is based on claims that the brand makes about itself, other people’s opinion about the brand, and the fulfilment of required service.	Brand awareness, Brand meaning
Yoo et al. (2000)	The dimensions proposed in this study are derived from Aaker (1991) conceptualization and tested with undergraduate students in three product markets (Athletic shoes, film for cameras and colour TV sets) in Korea and US. Here, brand awareness and associations are regarded as similar constructs after their survey proved no difference between the two dimensions.	Brand loyalty, Perceived quality, Brand (awareness/ associations)
de Chernatony et al. (2004)	Using the definition from Srivastava & Shocker (1991, p.5) as “a set of associations and behaviours on the part of a brand’s consumers, channel members and parent corporation that enables a brand to earn greater volume or greater margins than it could without the brand name and, in addition, provides a strong, sustainable and differential advantage”, de Chernatony et al. (2004) identified consumer based brand equity dimensions in financial service industries	Brand loyalty, Satisfaction and Brand reputation
Netemeyer et al. (2004)	Four studies carried out to test the validity and reliability of the “core” or “primary” CBBE facets proposed in this research based on Aaker (1996) and Keller (1993). The actual buyers chosen as sample groups and the product markets in which the test carried out included colas, toothpaste, jeans, athletic shoes, fast- foods, camera film, greeting cards, canned soups, pain relievers and breakfast cereals.	Perceived quality, Perceived value for the cost, Uniqueness, Willingness to pay a premium
Burmann et al. (2009)	Burmann et al. (2009) classified brand equity studies into three groups of “knowledge” based, “benefit” based and “preferences” based. They proposed that comprehensive brand equity dimensions must address these three stages. Furthermore, it is suggested that “knowledge” precedes “benefits” and “benefits” precedes “preferences.” This is a conceptualization study and no specific market is chosen.	Brand awareness, Brand benefit clarity, Perceived brand quality, Brand benefit uniqueness, Brand sympathy, Brand trust

Nam et al. (2011)	Investigated brand equity in the service market (restaurants and tourism) and identified five dimensions of consumer based brand equity. They further suggested that customer satisfaction fully mediates the effect of CBBE dimensions on brand loyalty. They adopted Brady, Cronin, Fox, and Roehm's (2008, p.152) definition of brand equity as "Brand equity is a perception of belief that extends beyond mere familiarity to an extent of superiority that is not necessarily tied to specific action. Familiarity does not imply belief in superiority"	Physical quality, Staff behaviour, ideal self-congruence, brand identification, Lifestyle-congruence
Christodoulides et al. (2012)	Used Farquhar's (1989) definition and Based on Aaker's (1991) model, they identified new dimensions to measure consumer based brand equity across three European countries.	Awareness, Heritage, uniqueness, reliability, willingness to sacrifice
Im et al. (2012)	Based their dimensions on Yoo et al. (2000). However, they separated brand awareness and associations. They also added brand image to their model.	Brand awareness, Image, Associations, Loyalty
Cifci, Ekinci, & Whyatt, (2014) Çifci et al. (2016)	Extended the dimensions identified by Nam et al. (2011) by adding brand awareness to CBBE model. Additionally, while Nam et al. (2011) distinguished between dimensions of brand equity, satisfaction and loyalty, Cifci et al. (2014; 2016) considered all of them as part of CBBE dimensions.	Brand awareness, physical quality, staff behaviour, ideal self-congruence, brand identification, lifestyle-congruence, brand satisfaction, brand loyalty.
Su (2016)	Conceptualised brand equity dimensions based on Keller (1993) and Aaker (1991). However, the author focused only on two aspects of brand associations namely perceived value and brand personality.	Brand awareness, perceived quality, brand personality, perceived value and brand loyalty.

Table 2-1 Brand equity dimensions

While various dimensions of brand equity have been identified by different scholars, the dimensions identified by Aaker (1991) – namely; brand awareness, associations, perceived quality and loyalty – have instructed many studies measuring brand equity such as Buil et al. (2013a), Yoo et al. (2000), Pappu et al. (2005) and Christodoulides et al. (2015). Aaker's (1991)

dimensions are important because some of the scholars who have developed dimensions of brand equity in the online context founded their conceptualizations on Aaker's (1991) work, such as Dwivedi et al. (2015), Page & Lepkowska-White (2002), Rana et al. (2015), Rios & Riquelme (2008; 2010). Hence, it is necessary to explain these four dimensions of consumer based brand equity before proceeding to review the dimensions of online brand equity. Accordingly, the next subsections would focus on defining and explaining brand awareness, perceived quality, brand loyalty and brand associations.

2-2-4 Brand Awareness

Brand awareness has been identified as a dimension of brand equity by a number of researchers including Aaker (1991) and Keller (1993). According to these authors, without a high level of brand awareness, it is difficult to create brand equity (Pinar et al., 2012). Brand awareness is also considered as the first step in creating brand equity through the creation of association nodes (Keller, 1993; Aaker, 1991). Aaker (1991, p.61) defined brand awareness as “the ability of a potential buyer to recognize or recall that a brand is a member of a certain product category.” Brand awareness is comprised of two distinct parts, namely recognition and recall (Keller, 1993). Brand recognition is the consumers' ability to recognise the name or symbol of brands that they have been exposed to in the past (Keller 2003). Brand recall on the other hand, is the consumers' capability to make a connection between the brand and the product/service contexts in which it operates (Keller, 2003). In line with Aaker (1991) and Keller (1993), this thesis adopts the Keller's (2008, p.8) conceptualisation of brand awareness, which refers to customers' “ability to recall or recognise a brand” and their knowledge about the brand.

Additionally, Keller (2003) identified two dimensions of brand awareness, namely, depth and breadth and noted that ideally, a brand should be strong in both dimensions. Consumers' ability to recognize and recall brands is conceived as the depth of brand awareness, for example, a

consumer's ability to distinguish a brand's logo from others or relate such brands to the products or services offered (Keller, 2003). The breadth of brand awareness refers to the influence of the brand in customers' mind in different purchasing and consumption contexts (Keller 2003).

As mentioned earlier, brand awareness is a dimension of brand equity which has been used by a number of scholars such as Buil et al. (2013a), Huang and Sarigollu (2012), Sasmita and Mohd Suki (2015), Keller (1993) and Aaker (1991). While such studies assert that awareness is a dimension of brand equity, it is worth mentioning that some researchers such as Yoo & Donthu (2001) and Washburn & Plank (2002) have argued based on empirical examinations of the dimensions of brand equity, that brand awareness and associations are indeed the same construct. However, other researchers such as Kim et al. (2003) contended that awareness is a valid and independent dimension in its own right. Hence, there is a discrepancy among scholars on whether awareness is an independent dimension of brand equity or whether it shares common characteristics with associations.

Previous research shows that brand awareness influences consumers' decision making, brand preference, brand market outcome (Huang and Sarigollu, 2012), and brand performance (Kim et al., 2003). Therefore, this research draws on the arguments by Keller (2003) and Aaker (1991) and considers brand awareness as a dimension of brand equity; because consumers may associate value to the products with brand names that they recall or recognise. After determining the significance of brand awareness, the next section explains perceived quality, which is another dimension of CBBE based on the conceptualisation by Aaker (1991).

2-2-5 Perceived quality

One of the important dimensions of consumer based brand equity is perceived quality (Aaker, 1991; Yacout & Elsahn, 2011). Perceived quality is defined as the consumer's perception of the overall quality and superiority of a brand in comparison to its competitors and alternatives (Aaker, 1991; Yacout & Elsahn, 2011; Zeithaml, 1998).

In characterizing this concept, Zeithaml (1998) stated that brand equity is subjective to consumers which makes it more of an abstract construct rather than objective and measurable quality of products/brands. Perceived quality is a global assessment and judgment of the quality of a brand formed in minds of consumers (Zeithaml, 1988). In the same vein, Holbrook and Corfman (1985) identified two forms of quality, mechanistic quality and humanistic quality. While mechanistic quality is concerned with measureable features and objective qualities of a product/brand, humanistic quality is subjective to people based on their use or experience with a given brand. A variety of factors influence consumers' subjective perceptions of quality such as their personal experiences with brands, the situational factors during the usage of brands and consumers' unique needs which they expect certain brands to address (Palmer, 2005).

Furthermore, Pappu et al. (2005) and Yoo et al. (2000) emphasised that perceived high quality distinguishes the brand from its competitors, giving consumers reasons and value encouraging them to buy the brand. High perceived quality convinces consumers to choose brands based on a perception of superiority and quality which they relate to the brand (Yoo et al., 2000). Aaker (1991) showed that perceived brand quality could create value to brands in various ways as shown in figure 2-2.

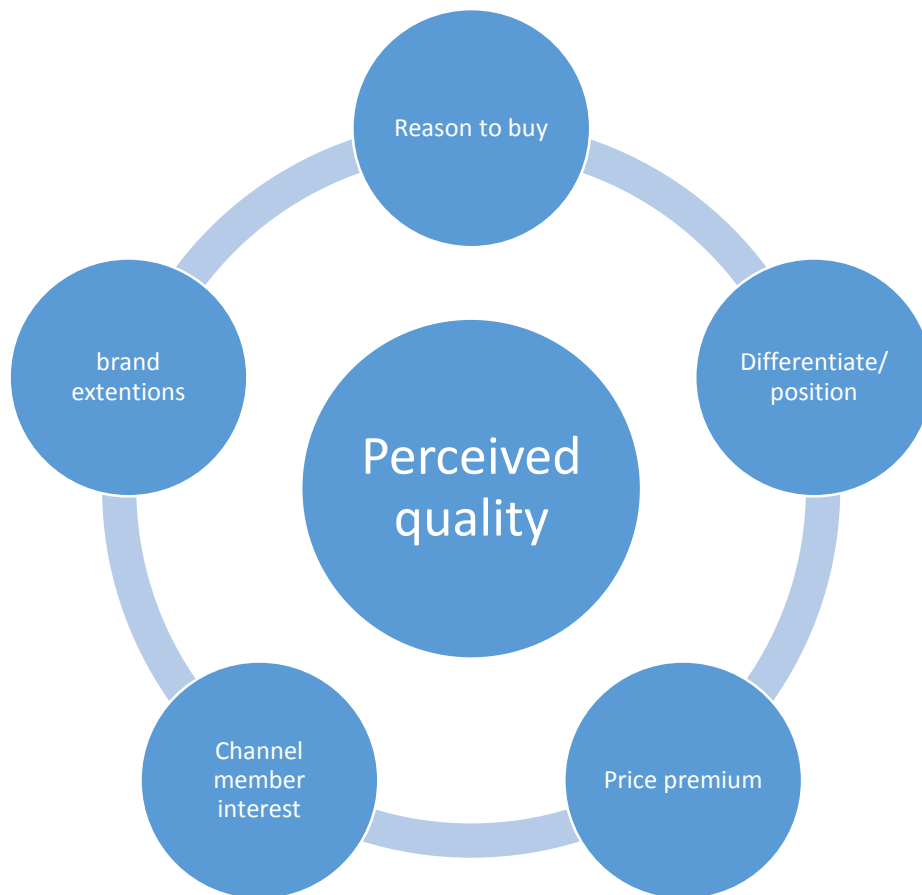


Figure 2-2 Perceived quality and value (Aaker, 1991)

Previous researchers have identified numerous dimensions of perceived quality; however, depending on the context (product/service) these dimensions may vary. The underlying reason for the differences in these two contexts rests on the characteristics of services, specifically; intangibility, variability, perishability and inseparability (Walker, 1995). Focusing on service industries, Parasuraman et al. (1985) developed a model for the dimensions of service quality. They recognized reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding and tangibles as determinants of service quality. However, in a subsequent analysis, these ten aspects were narrowed down to five dimensions, namely; reliability, responsiveness, assurance, empathy and tangibles (Parasuraman et al., 1988; Parasuraman, Berry, & Zeithaml, 1991). Parasuraman & Grewal, (2000) further explained that

reliability is considered as the capability of accurately and honourably fulfilling the promised service. Responsiveness refers to the firm's intention to provide the required service promptly. Assurance is the employees' knowledge and courtesy toward the consumer and capability to keep consumers confident and trusting of the brand. Empathy refers to the firm's support and consideration for each individual customer. Tangibles are "appearances of physical facilities, equipment, personnel and communication material." On the other hand, in developing measures for perceived quality in product markets, Garvin (1984; 1987) identified eight dimensions, namely performance, features, reliability, conformance, durability, serviceability, aesthetic and perceived quality.

Although perceived quality has been used in previous studies to measure brand equity (Aaker, 1991; Buil et al., 2013a; Su, 2016), there are opponents to this approach who argue that depending on the context, it may be better to use quality itself rather than perceived quality. For example, de Chernatony et al. (2004) used the reputation factor instead of perceived quality and argued that consumers can infer quality from a firm's reputation. Secondly, the author argued that assessing quality of some firms such as financial institutions is a difficult task for consumers, if not impossible. Likewise, Rios & Riquelme (2010) used perceived value instead of perceived quality. Accordingly, Aaker (2012) suggested that depending on the context and nature of the research, other variables such as perceived value can be used in place of perceived quality. In brief, this section reviewed the concept of perceived quality and highlighted its connection with perceived value.).

2-2-6 Brand Loyalty

In studying the significance of brand loyalty on the value of consumer based brand equity, scholars such as Aaker (1991) and Chaudhuri (1995) considered brand loyalty as the heart of brand equity. Kandampully et al. (2015) explained that it is essential for organizations to have

a loyal consumer base because such patronage improves the brand's sales capacity from existing buyers and in turn, enhances organizations' profit (Edward and Sahadev, 2011). Similarly, Chaudhuri (1995) showed that brand loyalty weighs on brand outcomes such as market share and price premium by increasing sales, reducing costs, and attracting higher premium from customers. Consequently, loyalty makes it far cheaper to keep existing consumers than to attract new ones (Edward and Sahadev, 2011; Oghojafor et al., 2012).

Loyal consumers increase sales because they purchase the same brand continually independent of other situational factors (such as in-store advertising). Secondly, loyalty helps to increase the number of repeat purchases by consumers (Chaudhuri 1995; Reichheld, 1996). In other words, loyal customers show more attachment to the brand and are less affected by competitors' advertising campaigns (So et al., 2013; Reichheld, 1996), thereby, promoting a mutually beneficial brand-consumer relationship (Pan et al., 2012). In addition, Chaudhuri (1995) proved that brand loyalty (patronage) lowers the cost of advertising and distribution and such consumers are usually willing to pay higher prices for the brands they patronise. Therefore, establishing loyalty programs and finding loyal customers can be potentially profitable for firms (Aaker, 1991; Keller & Lehmann, 2006). Reviewing the literature reveals that researchers generally look at brand loyalty from two perspectives; behavioural loyalty and attitudinal loyalty (Bandyopadhyay & Martell, 2007; Oliver 1999; Dick & Basu, 1994).

Newman & Werbel (1973, p.405) defined behaviourally loyal customers as "those who repurchased the brand and considered only that brand and did no brand related information seeking." From this view, Tellis (1997) recognized factors such as repeat purchase and the quantity of the same brand purchased over time as measures of brand loyalty. Pappu et al. (2005) stated that behavioural loyalty is the consumer's actual loyalty that translates to purchase choices. Kwon et al. (2016) explained that the behavioural dimension of brand loyalty measures the consumers' actual purchasing behaviour with regards to a given brand over its

competitors. Consequently, behavioural loyalty is manifested when consumers repeatedly patronizes a brand regardless of offers from competitors (Liu-Thompkins and Tam, 2013).

In operationalizing behavioural loyalty, Shukla (2009) identified four approaches; first, through measures of the actual consumption of good and services, secondly, from the proportion of consumption of specific products or services from a defined market or specific retail location (Driver, 1996, East et al., 1995). Thirdly, behavioural loyalty can be operationalized using measures of the probability of repeat purchases (Shukla, 2009) and fourthly, based on measures of the time it takes customer to switch to other brands (Tsao & Chen, 2005).

In addition to behavioural loyalty, studies such as Reichheld (2003), Tarus and Rabach (2013) and Liu-Thompkins and Tam (2013) explained that the attitudinal perspective of brand loyalty should also be accounted for. Similarly, Jacoby & Chestnut (1978) argued that measuring brand loyalty using solely behavioural measures ignores other underlying reasons for consumers' actions, i.e. when repurchases are not due to brand loyalty they could be linked other reasons such as lower price or convenience shopping. Furthermore, relying on behavioural loyalty alone could impact the accuracy in distinguishing among consumers with multi-brand loyalty (Jacoby & Chestnut, 1978). Hence, Oliver (1999) explained that the underlying psychological connotations of satisfaction and loyalty are better explained when brand loyalty is not confined to behavioural measures.. Kumar et al. (2013, p.248) conceptualised attitudinal loyalty as the "likelihood" of a customer to recommend, repurchase or revisit a retailer. They further elaborated that this likelihood is typically measured by weighing consumers' intentions. This is under this light that it is possible to explain why Bloemer and de Ruyter (1999), Kumar et al. (2013) and Izogo (2015) considered willingness to recommend a service provider as a form of attitudinal loyalty.

“Attitudinal brand loyalty includes a degree of dispositional commitment in terms of some unique value associated with the brand” (Chaudhuri & Holbrook 2001, p. 82). Similarly, Yoo & Donthu (2001, p. 3) defined it as “the tendency to be loyal to a focal brand, which is demonstrated by the intention to buy the brand as a primary choice.” Hence, due to the restrictions of behavioural loyalty measures and the importance of attitudes in determining consumers’ commitments, this research focuses on brand loyalty from attitudinal perspective. Oliver (2015) noted that brand loyalty can be formed of four phases; Cognitive, affective, conative and actionable. While the first three phases concentrate on attitudinal loyalty, the actionable phase focuses on the actual behaviour of consumers. Oliver (2015) characterized each phase as:

- Cognitive phase, it is based on information and consumer knowledge about the brand attributes performance level.
- Affective phase: the focus of this type of loyalty is the satisfaction derived from the past usage of a brand. The attitude formed as a result of liking (affective) a brand is the foundation of affective brand loyalty.
- Conative phase: This concentrates on the behavioural intention of the consumer to repurchase the brand. This commitment could be cognitive or affective however, it is closer to motivation than actual behaviour because it represents a commitment to intention, as opposed to actual purchase.
- In Actionable phase, consumers who are committed to the brand are ready to overcome various obstacles (such as situational factors or competitors’ incentives) to accessing and purchasing the brand.

Pappu et al. (2005) suggested that since CBBE is perceptual, the attitudinal dimension is a better measure than actual buying behaviour. Drawing on the consumer buying behaviour and attitude formation literature, Oliver (1999, p. 34) defined brand loyalty as “a deeply held

commitment to re-buy or re-patronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behaviour”. Consequently, this study adopts Oliver’s (1999) conceptualisation of brand loyalty because it includes the attitudinal dimension and secondly is a broadly accepted definition among scholars. The literature on loyalty shows that two factors namely; ‘word of mouth’ and ‘future purchase intentions’, have been used extensively to measure brand loyalty (Chai et al., 2015; Ding et al., 2011; Eusebio and Viera, 2013; Sirakaya-Turk et al., 2015; Yoon and Uysal, 2005). Bloemer and Ruyter (1999) for example, explained that it is important to account for attitudinal factors such as consumers’ willingness to provide word of mouth, in order to develop a comprehensive understanding of loyalty. Similarly, Bowen & Shoemaker (1998) described loyalty as the probability that a consumer will return to a service provider, or give referrals, word of mouth and publicise the brand. Therefore, brand loyalty measures in this study incorporate consumers’ willingness to recommend and purchase intentions as well as other attitudinal loyalty measures.

To clarify the process of consumers’ attachment and loyalty to brands, Aaker (1991) developed a pyramid showing the extent of consumers’ loyalty to brands. The bottom of the pyramid represents customers with no loyalty while the second level represents customers who are not dissatisfied with the brand. On the third level are the customers who are satisfied with the brand but would switch to new product/brand if there are changes in cost. On the fourth level, the customers like the brand and are able to make symbolic associations with the brand or based on their experience with it. However, Aaker (1991) warned that there it is possible for customers to lose interest in the brand over a period of time. At the top of the pyramid are the committed consumers, who are “proud of using the brand” and very likely to suggest it to others. This means that the brand is either very important to the committed consumers for its

functional / symbolic values or for the social values that consumer are able to express through the brand.

After delineating the levels of the brand loyalty pyramid, it is noteworthy that other brand perceptions can influence brand loyalty. For example, the role of brand trust (Morgan & Hunt, 1994; Chaudhuri & Holbrook, 2001; Harris & Goode, 2004), customer satisfaction (Oliver, 1999; Olsen, 2002; Harris & Goode, 2004), value (Harris & Goode, 2004) and perceived quality (Pappu and Quester, 2016) have been highlighted among scholars.

2-2-7 Brand Associations

Aaker (1991, p.109) defined brand association as “anything linked in a memory to a brand,” and continued that associations could have different levels of strength. Associations formed as a result of several experiences and exposures to the marketing of a brand are stronger than those formed by fewer exposures (Aaker 1991; Schivinski & Dabrowski, 2015). While various sources influence the formation of brand associations in consumers mind, “brand value,” “brand personality,” and “organizational associations” are considered as three dimensions of brand associations that could influence brand equity (Aaker, 1996). Based on Aaker (1996), brand values are associations at product and functional levels similar to Solomon’s (1983) functional utility perspective. Brand personality on the other hand deals with the brand as a person and focuses on the emotional and self-expressive characteristics resulting from using the brand (Aaker, 1996). This dimension is similar to the second dimension of Solomon (1983) proposed “social meaning.” In addition, brand personality can be used as basis for consumer-brand relationships (Aaker, 1996) i.e. when the difference between the functional values of competing brands is marginal, brand personality can be used to differentiate a brand by expressing the social values important to the consumer. The third dimension of brand associations deals with the organization behind the brand, and covers the values, people and

programs of the organization (Aaker, 1996). For example, consumer oriented organisations tend to take the consumers' benefit into consideration in branding products.

Hankinson (2005) categorizes brand associations into four groups, namely tangible, symbolic (emotional), experiential attributes and brand attitudes. The functional and symbolic aspects of brands are well established in numerous studies, for example, Gardner and Levy's (1995) proposed that brands could be viewed from two perspectives, technical capabilities, and personalities. Furthermore, Munson & Spivey (1989) identified two dimensions of brands, "value expressive" which represents the consumers' self-concept and "Utilitarianism" which deals with the consumers' concerns regarding the performance quality of the brand. While tangible and symbolic associations are product/service related and can be formed by marketing communications and promotions, experiential attributes and brand attitudes are based on the consumer experiences and interactions with the brand (Hankinson, 2005).

Keller (1993, p.3) defines brand image as "perceptions about a brand as reflected by brand associations held in consumer memory." He explained that the meaning ascribed to a brand is kept in the consumers' minds via brand associations and he further classified brand association into three categories encompassing attributes, benefits, and attitudes. Attributes are descriptive associations in the consumer's view used to characterize the product or service (Keller, 1993), (i.e. what features are included in the product or the speed of consumer service responds etc.). Benefits are the consumer's personal value assigned to rank the attributes in order of importance from the consumers' perspective (Keller, 1993). He then divides benefits into three categories comprising of functional benefits, experiential benefits and symbolic benefits in line with an earlier categorisation by Park et al. (1986). Finally, Brand attitude is considered as the overall value of the brand to consumer (Keller, 1993). Keller (1993) demonstrated that brand associations can vary depending on the level of favourability (how favourable and interesting associations are for consumers), strength (accessibility and strength of information in

consumers mind; in other words how strong are the consumer associations link to the brand) and uniqueness (exclusivity of the associations for the brand when compared to competitors). Furthermore, he explained that these brand associations together form the brand image.

After reviewing the brand equity literature and elucidating four dimensions of brand awareness, brand associations, perceived quality and loyalty, this thesis continues with elaborating the differences between brand equity in the online and offline contexts.

2-3 Online brand equity

Porter (2001) explained that due to advancements in technology and low entry barriers, competition between online brands is increasing. Consequently, it is suggested that online brands need to develop strategies to obtain customers and create economic value in order to remain competitive in their market (Porter, 2001). Thus, it is very important to create brand equity in the e-commerce environment, as CBBE is one of the sources of differentiation and competitive advantage (Kotha, Rajgopal, & Rindova, 2001). Brand equity also prevents other online brands from easily replicating business strategies (Kim, Sharma, & Setzekorn, 2002). In addition, online brand equity could help consumers to find more information about the company and in so doing, improve consumers trust in the brand (Kim et al., 2002). Swaminathan (2016) noted that the world today is increasingly becoming interconnected and mobile and this raises new challenges and research opportunities with respect to the creation, management and measurement of brand equity in digital contexts. While the traditional branding and offline brands have been researched extensively, online brand equity is comparatively underexplored (Fan and Su, 2011; Keller, 2016; Swaminathan, 2016; Wang, Hsiao, Yang, & Hajli, 2016). Hence, this chapter continues with clarifying the distinctions between online and offline contexts, when it comes to, branding and sources of brand image.

2-3-1 Distinctions between online and offline brand equity

Gonzalez-Benito et al. (2015) suggested that brands play an important role as information signals in online contexts because consumers cannot touch or taste the products and the information they have is often imperfect. Similarly, Rios & Riquelme (2010) identified various sources of difference between online and offline environments.

Firstly, in online environments, customers interact with websites and technology to build experience about a brand (Dayal, Landesberg, & Zeisser, 2000), while in the offline context, customers are in touch with actual people rather than technologies (Rios & Riquelme, 2010). Secondly, some online specific sources could affect consumers perceptions, for example, the navigation, personalisation and reliability of websites can influence consumers' perceptions and image of the brand (Page & Lepkowska-White, 2002; Rios & Riquelme, 2010). Thirdly, due to the intangible nature of online businesses, trust plays an important role in forming consumer based brand equity compared to offline contexts (wherein physical and tangible features are accessible to interact with by the customers (Berry, 2007)) (Christodoulides et al., 2006; Kim et al., 2002; Rios & Riquelme, 2010). Furthermore, it is suggested that due to the unique characteristics of online brands (such as intangibility) and the fact that brand experience occurs while visiting the online websites (Berry & Seltman, 2007), the dimensions of brand equity are more similar to services than the classical offline dimensions developed for products (Davis, 2000; Jevons and Gabbott, 2000; Rios & Riquelme, 2010).

Similarly, it is possible to assume that the differences between the brand equity of online brands and offline brands are rooted in the different sources of brand images (Page & Lepkowska-White, 2002). For example, in the offline context, associations are formed around characteristics of the product (i.e. associations about a computer is formed around its CPU speed, hard drive capacity, etc.) (Page & Lepkowska-White, 2002). However, for online

brands, the website related associations can also play a role in consumers' formation of brand image (i.e. easy to use website, navigation and speed) along with product related features (Page & Lepkowska-White, 2002). In addition to website related association, new technologies have increased the number of consumer-brand contact points (such as social media and user-generated contents) in the digital context (Swaminathan, 2016). This in turn highlights the effect of online brand interaction and communication as sources of brand image and brand equity (Swaminathan, 2016).

Page & Lepkowska-White (2002, p.233) proposed that the factors that influence online brand equity consist of "Marketing Communication", "Website design features", "Vendor characteristics" and "public/service characteristics". Marketing communication is divided into marketer communication and non-marketer communication (Page & Lepkowska-White, 2002). Marketer communication is comprised of advertisements, promotions, direct marketing and public relations, whilst, non-marketer communications comprises of actions such as word of mouth or non-marketer related publicities (Page & Lepkowska-White, 2002).

Website design feature include factors such as

- Reliability (consistency of the website).
- Navigation (easiness of finding required information).
- Quality information (the quality of the relevant information provided by website).
- Product comparison (ease of comparing different products).
- Personalised (how customised the information are for different users)
- Experiential (customers experience of the website such as enjoyment, fun)
- Speed of download and ease of ordering (Page & Lepkowska-White, 2002).

Vendor characteristics refers to factors such as

- Customer service (the level of responsiveness to customer needs and inquiries).
- Privacy (the ways the vendor protects customers privacy and information).
- Security (the guarantee of the websites security)
- Trustworthiness (the reliability of the vendor) (Page & Lepkowska-White, 2002).

Product/service characteristics refer to the quality (the quality of actual products/services), selection (a suitable array of products/ services) and price (the perception of the offered price) of online websites (Page & Lepkowska-White, 2002).

In addition, there are changes in the digital environment that can also influence branding and brand management. Gürhan-Canli, Hayran, & Sarial-Abi, (2016) explained that macro changes in the digital business environment may influence consumers' expectations. As the consumers' expectations are transformed, the underlying factors that create strong brands are also affected such as "fast paced technological advances", "Digital (online) developments and increased connectivity" and "Social and environmental constraints" (Gurhan-Canli et al., 2016, p.25). They further noted that, to address these changes and create a strong image, brands must have three attributes, namely, innovativeness, responsiveness and responsibility. For instance, fast-paced technological advancements have improved service quality, customer services and personalization of goods and services. Accordingly, for brands to stay competitive and create the desired and valued brand perceptions, they need to be innovative in addressing new and changing customer needs and expectations. Similarly, consumers demand faster and more effective responses from brands in the digital environment. The increase in the number of social networking sites, and improved connectivity and digital information flow, has transformed the relationship between consumers and brands. Thus, brand responsiveness can influence consumers' perceptions and image about the brand and serve as a source of unique brand

associations. Finally, the increasing levels of consumer interactions online and the formation of online communities highlight the significance of brands' social and environmental responsibility (Gurhan-Canli et al., 2016).

To distinguish between offline and online brand equity, Kim et al. (2002) explained that creating brand equity in online context differs from the brick and mortar environment, because offline brands are unique and harder to replicate. Therefore, the differentiation of brands from competitors' is indispensable for successful branding in online contexts (Rana et al., 2015). Kim et al. (2002) further explained that finding requisite information and comparing brands are much easier in online contexts because of the internet. Therefore, creating brand equity in online environments requires a different strategy to offline contexts (Kim et al., 2002). Hence, it implies that assuming the traditional dimensions of consumer based brand equity for online brands without considering the differences between these two contexts is inadequate (Meyers and Gerstman, 2001; Rios & Riquelme, 2010; Swaminathan, 2016). This is because such differences have implications on online brand equity dimensions (Keller, 2016; Rana et al., 2015; Swaminathan, 2016).

However, despite the discrepancies between these two contexts, some studies have used Aaker's (1991) or Keller's (2003) traditional brand equity dimensions to measure CBBE in the online and mobile commerce (m-commerce) context (i.e. Kim et al., 2002; Page & Lepkowska-White, 2002; Wang & Li, 2012). Accordingly, this thesis maintains the view that although the previously identified dimensions of offline brand equity could apply in online contexts, the differences between the two environments must also be considered. Following the clarification of the differences between the online and offline contexts, it is important to note here that these two environments also share some similarities as well. In the next section, these similarities are examined, followed by a review of the relevant literature on online brand equity, and finally, a conceptualisation of the CBBE in a digital environment.

2-3-2 Development of online brand equity

From reviewing the definitions, perspectives and dimensions of online and offline brand equity, there are several apparent similarities between them. For instance, online brand equity is treated as a multidimensional construct and refers to the value of online brands to consumers (Kim et al., 2002; Page & Lepkowska-White, 2002; Rana et al., 2015; Rios & Riquelme, 2008; 2010). Page & Lepkowska-White (2002) was one of the earliest studies that attempted to conceptualize online brand equity based on Keller's (2003) definition. In doing so, they defined "Web equity" in terms of "Web awareness" and "Web image." Web awareness refers to consumers' familiarity with the brand's website, while Web image is concerned with consumers' perceptions of the website based on associations (website related or none-related) established in the consumers' memory (Page & Lepkowska-White, 2002, p.232). Similarly, Zhi-gang and Xiao-ming (2006, p.42) offered a model of online brand equity based on two components - brand awareness and brand image. They further split brand image into three aspects including "web design", "content" and "experiential" associations.

Unlike studies that viewed online brand equity from the traditional perspective, Christodoulides et al. (2006) proposed that the new online models should be different and more customers centred. They suggested that the previous studies were rooted in cultural engineering (Holt, 2002), wherein, brands are used to create associations in consumers' minds through advertising and communication techniques, which tend to force associations on consumers (Christodoulides et al., 2006). In their proposed model however, they adopted Holt's (2002) view that brands are co-created with their customers. They also maintained that interactions between consumers and e-tail brands serve to co-create brand equity and proposed a new model of CBBE for online contexts based on the "relational type of intangible asset" view (Christodoulides et al., 2006). Furthermore, the online retail/service (ORS) model was developed in line with Vargo and Lusch's (2004) service centred view of marketing, which

suggests that the meaning ascribed to brands is co-created by companies and their consumers. The online retail/service (ORS) model considers consumer based brand equity as an intangible asset that stems from the relationship between a brand and its consumers (Christodoulides et al., 2006). This ORS model comprises of five dimensions, namely “emotional connection”, “online experience”, “responsive service nature”, “trust” and “fulfilment” (Christodoulides et al., 2006). One of the advantages of this model over previous ones is that while the dimensions were proposed by brand experts (Christodoulides et al., 2006), they have since been examined and validated using quantitative surveys.

However, Rios & Riquelme (2010) argued that the existing dimensions of Online retail/service (ORS) cannot be predictive of brand equity because of differences in definitions and a lack of statistical evidence or nomological validity for a predictive model. They also noted that the relational definition of brand equity does not reflect the views developed by Keller (1993), where brand equity is considered as the consumer’s response to branded products compared to unbranded ones. They further argued that it is unclear why “brand awareness”, which is a building block of consumer based brand equity was absent in this model (Rios & Riquelme, 2010). In addition, the model does not explain why independent factors such as fulfilment are not considered as associations, thus justifying the application of traditional models in online environments (Rios & Riquelme, 2010).

Subsequently, Rios & Riquelme (2008; 2010) proposed a model of online brand equity comprising of brand awareness, brand loyalty, trust associations and value associations dimensions. Using structural equation modelling, they investigated the correlations between brand equity dimensions and overall brand equity (in their study, willingness to pay higher price) (Rios & Riquelme, 2008). However, the findings of their research in 2008 and a subsequent study in 2010 were slightly different. Rios & Riquelme, (2008) found overall brand equity to be directly linked to brand loyalty and value associations and an indirect effect

between trust and brand equity. Yet, the results were different in Rios & Riquelme (2010), where they identified brand trust and loyalty as main influential factors of overall brand equity and suggested that perceived value indirectly affects brand equity. However, both studies did not recognise brand awareness as an effective variable in determining brand equity (Rios & Riquelme, 2008; 2010) but nonetheless, such differences can be attributed to the nature of the study. Rios & Riquelme (2008) noted that the low influence of brand awareness on brand equity in their study could have resulted from using well-known brands to test the relationships between the dimensions and overall brand equity. Furthermore, the selection of metrics used for overall brand equity (i.e. paying higher prices) can also be criticised. Ailawadi & Keller (2004) showed that some of the strongest retailers in the world such as Aldi and Walmart have positioned themselves as low cost brand. According to Rios & Riquelme (2008), using the degree of consumer's willingness to pay a premium as a measure of brand equity can be misleading and should be further investigated.

In a more recent study, Rana et al. (2015) showed that brand trust, loyalty, satisfaction, and service quality form the dimensions of online brand equity. Furthermore, in emphasising the role of awareness, Barreda (2014) identified two dimensions of online brand equity, namely; brand awareness and brand image. Such discrepancies in the dimensions of online brand equity underline the importance of taking into account both the construct conceptualisations and the context of the study.

In this study, online brand equity is viewed from the consumers' perspective and Keller's (1993, p.2) definition of brand equity as "the differential effect of brand knowledge on consumer response to the marketing of the brand" is adapted for online brands. Subsequently, it is suggested that brand equity is comprised of brand awareness and brand associations. Furthermore, this study draws on previous studies by Rios & Riquelme (2008; 2010) and identifies three online brand equity dimensions, namely, brand value, brand trust, brand loyalty.

Thus, the current study identifies four dimensions of brand equity in total, specifically, brand awareness, brand value, brand trust and brand loyalty. The main reasons for selecting these four dimensions are:

- Awareness is considered as a dimension of (online/offline) brand equity by previous studies such as Aaker (1991), Abu Elsamem (2015), Barreda (2014), Guan et al. (2007), Keller (1993), Page & Lepkowska-White (2002) and Wang et al. (2016). Although Rios & Riquelme (2010) could not find a meaningful relationship between brand awareness and brand equity, it is argued that this could have been due to the use of well-known brands like Amazon and eBay in their study. Furthermore, Kim et al. (2002) proposed that due to the nature of online environments, it is easy to copy a business model and difficult to keep consumers loyal. Therefore, consumer acquisition is more expensive for online companies than their offline counterparts. Hence, it is necessary to be on top of the consumers' minds when it comes to online shopping (awareness) (Kim et al., 2002).
- Loyalty is considered as an important dimension of (online/offline) brand equity by previous studies such as: Abu Elsamem (2015), Chinomona et al. (2016), Guan et al. (2007), Page & Lepkowska-White (2002), Loureiro (2013), Rana et al. (2015), Rios & Riquelme (2008; 2010).
- Trust is regarded as an important dimension of online brand equity (Rana et al., 2015; Christodoulides et al., 2006; Rios & Riquelme, 2010). Due to the privacy and security risks involved in online transactions (Christodoulides et al., 2006), brand trust as a dimension of brand equity offers protection to consumers from undesirable outcomes.
- Using brand value in the context of this study is more justified. Although numerous studies used perceived quality as a dimension of brand equity, in the context of this research, it is suggested that perceived value is a more suitable construct. Aaker (2012,

p. 111) argued that “A substantial issue in the value dimension is whether it really represents a different construct from perceived quality; after all, value can be considered at least in some contexts as perceived quality divided by price.” He further explained that in various studies measuring the relationship between value and quality, both constructs are often highly correlated. This is in line with Netemeyer et al. (2004) and Holbrook and Corfman (1985) who suggested that in making brand judgments, consumers are unable to clearly distinguish between perceived quality and perceived value. Aaker (2012, p.112) therefore suggested that “Perceived quality and (more generally) esteem relate to the prestige and respect that the brand holds. In contrast, value relates more to functional benefits and the practical utility of buying and using the brand”. Considering the context of this study in which the online brands are set to provide consumers with relevant advertisements and sales promotions, it is suggested, in line with Abu Elsamen (2015) and Rios & Riquelme (2008), that perceived value is a better dimension of consumer based brand equity.

After defining online brand equity in the context of this research, in the remaining sections, two dimensions of brand value and trust are explained.

2-3-3 Brand Value

Perceived value is a major predicting factor of consumers’ behaviour (He et al., 2010). Anderson et al. (2014) and Chiu et al. (2014) showed that it is a major factor in predicting consumers’ loyalty, purchase intentions, and preventing consumers switching behaviours. In the context of brand equity, scholars such as Su (2016), Mishra et al. (2015), Tasci (2016), Netemeyer et al. (2004), Rios, and Riquelme (2008) considered perceived value as one of the main brand associations.

When it comes to the conceptualisation of this construct, the majority of the definitions emphasise the trade-offs between the consumers' gains (such as quality, utility, price and functionality) and losses (or associated costs) (Tasci, 2016; Maklan & Knox, 1997; Zeithaml, 1998).

Zeithaml (1988, p.14) defines customer value as "The consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given". Additionally, Monroe (1990, p.46) explained that perceived value "represent[s] a trade-off between the quality of benefits they perceive in the product relative to the sacrifice they perceive by paying the price". Furthermore, Maklan & Knox (1997, p.122) delineated it as "The consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given." Similarly, He et al. (2010) claims that perceived value is regarded as perceived utility of a product/service or a relationship with an organization, hence, it includes the trade-off between benefits and sacrifices. As evident from the definitions, perceived value is a personal (perceptual) comparison made between the benefits gained and costs (He et al., 2010; Overby & Lee, 2006). Furthermore, Zeithaml (1988) explains that while some consumers may attribute low price to perceived value, others may perceive value when there is a balance between the perceived quality and the associated costs.

Reviewing previous research, Chai et al. (2015) identified two approaches on perceived value. The first approach views perceived value as the trade-off between gains (i.e. psychological, social, economic) and sacrifices (i.e. price, time, effort). The second approach, considers perceived value as a construct with both functional and affective dimensions (Chai et al., 2015; Roig et al., 2009; Chiu et al., 2014). Despite this classification, there are studies that viewed brand value from a multi-dimensional perspective and they included costs (sacrifices) elements in their model i.e. Shukla & Purani (2012).

While Chai et al. (2015) concentrated on two dimensions (utilitarian and hedonic) of perceived value; some studies have identified other components of perceived value, such as social value (Sheth et al., 1991; Yu, Zo, Choi, & Ciganek, 2013). Proponents of multi-dimensional conceptualisation of value argue that, focusing solely on economical and functional values results in deficiencies in the comprehensiveness of this approach. Carlson et al. (2015), O’Cass & Ngo (2011), Woodall (2003) and Sweeney and Soutar (2001) for instance, suggested that focusing solely on the economic trade-offs do not capture the true complexities in the concept of value, and advocated that value is a multi-dimensional concept.

While the functional (utilitarian) dimension refers to the rational and economic valuations of an individual, affective (hedonic) dimension deals with the emotional and social aspects of consumers (Chai et al., 2015). This is in line with intrinsic-extrinsic typology of value by Holbrook (1999, p.135). He explained that, extrinsic values connect to practical purposes and address “instrumental” needs such as increasing convenience, improving quality and offering better prices. Intrinsic values come from pleasures derived from feelings such as having fun and playfulness.

Functional (utilitarian) dimension focuses on the consumers’ rational assessment and perceived values (Chai et al., 2015). Accordingly, Overby & Lee (2006, p.1161) defined this dimension as “an overall assessment (i.e., judgment) of functional benefits and sacrifices”. Chen and Hu (2010) & Rintamaki et al. (2006) suggested that functional values refer to tangible needs such as price, convenience, and quality.

Hedonic values are “an overall assessment of experiential benefits and sacrifices” (Overby & Lee, 2006, p. 1161). Furthermore, it consists of the affective (emotional) benefits from using a service/product such as fun and enjoyable experiences (Kim et al., 2007; Forsythe et al., 2006).

Hirschman and Holbrook (1982) further explained that hedonic consumptions relates to three facets of consumers' experience including multisensory, fantasy and emotional aspects.

Although utilitarian and hedonic dimensions of value are widely accepted among scholars, previous studies have extended these dimensions of value to up to eight various components (Tasci et al., 2016). Cengiz & Kirkbir, (2007) for example divided hedonic values into two groups of intrinsic feelings (emotional value) and extrinsic value (social value) and identified three dimensions of functional, hedonic, and social values. Furthermore, Berthon et al. (2009) identified three dimensions of functional value, experiential value and symbolic value. However, Shukla, Singh & Banerjee (2015) and Shukla & Purani (2012) divided symbolic values to two groups of self-directed symbolism and other directed symbolism. Moreover, Sheth et al. (1991) identified five dimensions namely; social value, emotional value, functional value, epistemic value, and conditional value. Table 2-2 shows the various dimensions of perceived value as identified by previous studies.

Holbrook and Hirshman (1982)	Utilitarian, Hedonic
Holbrook (1999)	Convenience, Quality, Success, Reputation, Fun, Beauty, Virtue
Babin et al. (1994)	Utilitarian, Hedonic
de Ruyter et al. (1997)	Emotional, practical, Logical
Mathwick et al. (2001)	Playfulness, Aesthetic, Consumer return on investment, Service Excellence
Sheth et al. (1991)	Functional, Emotional, Conditional, Social, Epistemic
Sweeney and Soutar (2001)	Functional (Performance/quality), Functional (price/value for money), Emotional, Social
Pura (2005)	Monetary, Convenience, Social, Emotional, Epistemic, Conditional
Overby & Lee (2006)	Utilitarian, Hedonic
Sanchez et al. (2006)	Functional (establishment), Functional (personnel), Functional (price), Functional (product), Emotional, Social
Pihlstrom and Brush (2008)	Conditional, Epistemic, Emotional, Social, convenience, monetary
Berthon et al. (2009)	Functional, Experiential and Symbolic

Cheng et al. (2009)	Functional, Social, Emotional, Epistemic
Wetzels et al. (2009)	Utilitarian, Hedonic, Experiential (Fourth order construct comprised of Hedonic and Utilitarian)
Koller et al. (2011)	Functional, Economic, Social, Emotional, Ecological
Shukla & Purani (2012)	Self-directed symbolic/expressive, Other-directed symbolic-expressive, Experiential (hedonic), Utilitarian (functional) and Cost (sacrifices)
Chai et al. (2015)	Utilitarian, Hedonic
Jamal and Sharifuddin (2015)	Monetary, Emotional/quality, Social
Carlson et al. (2015)	Service performance, Emotional, Monetary, Brand Integration, Convenience
Shukla et al. (2015)	Functional, Experiential, Other-directed symbolism and Self-directed symbolism.

Table 2-2 Dimensions of Perceived Value

Similar to Liu et al. (2015), Kim et al. (2007), He et al. (2010), He et al. (2012), Kim & Gupta (2009) and Wu et al. (2014), perceived value is viewed in this study from the perspective of trade-offs between gains and sacrifices. Accordingly, Zeithaml's (1988) conceptualisation of value as received benefits in comparison to given (costs) is also adopted in this study. However, perceived value in this study extends beyond quality-price relationships to incorporate a more comprehensive view of the benefits and sacrifices that consumers face. Hence, in line with Kim et al. (2007), brand value in this study refers to the consumers' overall perception of online brands and considers the benefits and sacrifices in using such brands. To measure perceived value, an overall assessment of value (Kim et al., 2007; Liu et al., 2015; Sirdeshmukh et al., 2002) is measured for the following reasons:

Firstly, to reduce the model complexity and increase its generalizability of the research. While including various dimensions of perceived value such as hedonic aspects could improve the model's theoretical accuracy, it could have an adverse effect on the practicality of the research. For example, while including dimensions of Functional value, Emotional value, Conditional value, Social value and Epistemic value as latent variables (as offered by Sheth et al. (1991))

in the model could improve theoretical accuracy, it would make the model complex and could affect the accuracy of the research (i.e. by leading to research response bias).

Secondly, although multi-dimensional conceptualisations of perceived value (such as Sheth et al., 1991) are helpful in emphasizing benefits, they generally do not include the costs of consumption (Kim et al., 2007). However, conceptualising overall value from a trade-off perspective incorporates the costs as well as benefits of using the service. In other words, to understand the value of a website (or mobile applications), the time and efforts required for using the service (such as downloading the voucher/mobile application, searching for relevant vouchers, printing and taking voucher the voucher to the advertiser) are included. Including the sacrifices in the conceptualisation is essential in the context of this research. As it is possible to assume that unreliable and obsolete incentives in the text messages and spams could positively affect the costs and negatively affect the value of the online brands. Therefore, when measuring the effect of mobile advertising on brand value, it is important to include the costs as well as benefits.

2-3-4 Brand Trust

This section reviews the definitions of trust and clarifies its importance as an identified dimension of online brand equity. Although studies such as Aaker (1991) did not recognise trust as a distinct dimension of offline brand equity, the relationship between trust and the internet is significant and online contexts are associated with comparatively higher levels of perceived fears and anxieties (Rana et al., 2015). Due to such uncertainties, many researchers have emphasised the role of trust in establishing successful ecommerce (Sur, 2015; Gefen, 2000; Pavlou, 2003). The growth in the rate of internet use for information search and shopping by consumers also underlines the significance of consumers' trust for online vendors (Bart et al., 2005). Shukla (2014) for example, showed that the level of trust in online brands could

directly influence consumers' purchase intentions and indirectly (via perception of risk) affect the consumers' satisfactions of the shopping process. It is also suggested that to gain customers' loyalty, brands need to first gain their trust (Chai et al., 2015; Chinomona, 2016; Reichheld and Schefter, 2000). In such circumstances, it is clear why trust is viewed as an essential dimension of online brand equity (Christodoulides et al., 2006; Rana et al., 2015; Rios & Riquelme, 2010), and an influential factor in consumers' intentions to shop online (Faqih, 2016).

Lee et al. (2015) explained that trust generally involves two partners and they identified 'mobile phone company' and 'users', as two exchange partner in the context of their research. In a similar vein, recipients of SMS advertisements and the online brands are considered as the exchange partners in this study. Trust plays a key role in social or economic interactions that involve uncertainty or reliance on a second party (Teo and Liu, 2007). Furthermore, trust is considered necessary for establishing a relationship between online brands and customers (Doney and Cannon, 1997; Dwyer et al., 1987; Reichheld and Schefter, 2000).

Therefore, winning customers' trust in the online context is important and can be affected by constraints that customers face shopping for brands online. Since consumers cannot touch, try, or feel their products before purchasing them they arrive at decisions relying on images and promises posted on websites (Reichheld and Schefter, 2000). Accordingly, it is much harder for consumers to make an order on websites that are not familiar or untrustworthy. Research has also established that consumers shopping online are swayed first by trust before price considerations (Reichheld and Schefter, 2000). In conclusion, brands can gain competitive advantage by winning consumers trust, because when consumers can trust a brand, they are more likely to share their personal information (Reichheld and Schefter, 2000). In turn, firms can use this information to foster intimate relationships with their customers, develop tailored products and services, and increase the trust and loyalty of their customers (Reichheld and Schefter, 2000).

Despite the significant role of trust in creating customer relationship and loyalty (Lee et al., 2015), the conceptualisation and definition of trust is complicated (Faqih, 2016; Josang et al., 2007; Mayer et al., 1995). There are different definitions, conceptualizations (Colquitt et al., 2007; Faqih, 2016) antecedents, consequences, and characteristics of trust among scholars (Lee & Turban, 2001). Mayer et al. (1995, p.709) attributed these various perspectives to the characteristics following of trust;

- The complexity of defining trust.
- Confusing the concept of trust with its antecedents or consequences.
- Complexity in comprehending the relationship between trust and risk.
- “Lack of specificity leading to confusion in level of analysis”.
- Not accounting for the inputs of both the trusting party and the trusted.

The lack of a commonly held definition for trust is one of the main impediments to its conceptualisation (Barber, 1983; Das and Teng, 2004; Faqih, 2016). However Beldad et al. (2010) and Whitener et al. (1998) held that there are common grounds in conceptualising trust, arguing that previous studies generally viewed trust from two main perspectives. First, the expectations outlook refers to the expected good will of both parties in fulfilling their promises. Secondly, the vulnerability and uncertainty perspectives refer to the risks that trusting party faces in interacting with the trusted party. A Review of the extant definitions of trust shows that either one or both of these dimensions are present in most definitions.

- Rousseau et al. (1998, p.395) defined trust as “a psychological state comprising the intention to accept vulnerability based on positive expectations of the intentions or behaviours of another.”
- Morgan & Hunt (1994, p.23) explained that trust occurs “when one part has confidence in an exchange partner’s reliability and integrity.”

- It is defined as “a willingness to rely on an exchange partner in whom one has confidence” (Moorman et al., 1993, p. 82).
- Brand trust refers to the consumers’ perception that the brand is accountable and reliable for the welfare of their consumers (Delgado-Ballester, 2003; Lee et al., 2015).

With regard to online trust, one widely accepted definition of trust was put forward by Corritore et al. (2003, p.740) as “an attitude of confident expectation in an online situation of risk that one’s vulnerabilities will not be exploited.” Individuals’ vulnerability in online contexts can be attributed to the open and global nature of the internet, which results in higher levels of perceived security threats and fraud (Faqih, 2016). Such risks and threats act as deterrents to consumers’ acceptance of e-commerce (Rios & Riquelme, 2010).

In line with Rana et al. (2015), Christodoulides et al. (2006) and Rios & Riquelme (2010), this research assumes that consumers’ trust and peace of mind in dealing with a brand can be regarded as a source of online brand equity. Furthermore, Delgado-Ballester’s et al. (2003, p.37) conceptualisation of trust as “the confident expectations of the brand’s reliability and intentions in situations entailing risk to the consumer” is adopted as it incorporates both aspects of consumers’ ‘expectations of brand promises’ and ‘perceived vulnerabilities’.

From the expectations point of view, trust is concerned with the ambiguity that exists in social transactions and exchanges (Beldad et al., 2010). It is proposed that, individuals only need trust in their social relationships, thus, sociological functions are emphasised over the individual’s psychological functions (Beldad et al., 2010; Lewis and Weigert, 1985). In order to participate in various social interactions, individuals are obliged to bear some degree of uncertainty resulting from human interactions and social contracts (Beldad et al., 2010). Syed et al. (2016) suggested that by keeping promises and maintaining a consistent performance, brands could encourage favourable behaviours from consumers. Such favourable behaviours represent a

form of high degree of belief and trust in the brand (Han and Sung, 2008; Morgan & Hunt, 1994; Syed et al., 2016).

From the vulnerability perspective, Zand (1972) explained that the act of trusting other people or parties leads to the acceptance of some vulnerability by trustors because of inability to control the actions of trustees. Mayer et al. (1995) highlighted the significance of risk factors in developing trust models. They explained that to understand trust and distinguish it from its outcomes, it should be noted that the ‘willingness’ to trust does not involve risk. However, the actual ‘behavioural manifestation’ of trust introduces risk factors into relationships i.e. a person willing to trust a party, does not risk anything, however actual trust involves accepting the potential for some risks and vulnerabilities to occur, including financial loss. Furthermore, they explained that trust is the willingness of accepting risk and behavioural trust is the actual risk taking behaviour. This view of trust and risk is in line with Sitkin and Pablo (1992) view of risk as both the tendency of taking risk and actual risking behaviour. Therefore, it is proposed that trust leads to acceptance of some forms of risks in the relationships between trustor and trustee (Schoorman et al., 2007; Mayer et al., 1995). Kee and Knox (1970) demonstrated that in all the situations where trust applies, there is some level of perceived risk, due to the incomplete information available to the trustor (Bachmanns, 1998). Although various risks are included in online shopping (i.e. financial risk, losing time), Rios & Riquelme (2010) emphasised on risks associated with privacy concerns and security.

Trust has been categorized in various forms, Chai et al. (2015) for example divided it from a cognitive and affective perspective, while Barber (1983) and Mayer et al. (1995) found three sources of expectations trust namely; ability, benevolence, and integrity. However, in this study such categorizations do not apply because they would make the theoretical framework extremely complex. Thus, for parsimony, a simpler model is adopted.

In this section, the definitions and conceptualisations of trust as a dimension of online brand equity was reviewed. The adopted definition of trust was presented and it was explained that trust should include fulfilment of a brand's promises as well as consumers' security and privacy protection. After determining and conceptualising the dimensions of online brand equity, this thesis explains the influence of advertising on those dimensions.

2-4 Influence of SMS advertising on consumer based brand equity

This section reviews the literature on the influence of advertising on consumer based brand equity and then suggests that SMS advertising (as a form of advertising) has an influence on the CBBE dimensions. Among the various factors that influence CBBE, the effect of advertising and personal experience is emphasized in many studies (i.e. Buil et al. (2013b) and Schivinski and Dabrowski (2015)). Keller (2007), explained that advertising could lead to brand awareness and generate unique, strong, and favourable associations in consumers mind. Similarly, Cob-Walgren (1995) identified advertising as a main mechanism for differentiating brands through improved brand equity. Moreover, Schivinski and Dabrowski (2015) showed that firm generated contents (advertisements in Facebook) have a positive relationship with brand awareness and associations. Furthermore, Buil et al. (2013b) demonstrated that consumers' attitude toward advertisements has direct effects on brand awareness, associations, and perceived quality.

In addition to advertising, the role of personal experience is also highlighted by some scholars. For instance, Aaker & Biel (1993, p.5) pointed out that "advertising, along with personal experience, is an undeniable force majeure in creating brand equity." In addition, Berry (2000) contended that a brand's external communications and customers' experience leads to higher brand awareness and brand meaning, which in turn results in brand equity. In a similar vein, Yang et al. (2015) showed that consumers' experience could result in higher brand equity for tourism destinations.

One of the forms of advertising used by brands to improve their relationships with customers is mobile advertising. Among various forms of mobile advertising, SMS advertising is the most primitive tools (Chowdhury, Islam, & Rana, 2016; Varnali, 2014) wherein, consumers receive advertisements and sales promotions as a form of text message via their mobile phones. Through SMS advertising campaigns, consumers are exposed to advertisements and experience various benefits such as receiving coupons and vouchers. Such exposures in turn, could affect consumers' perceptions and judgments about the brand and brand equity. In the next sections, the literature on SMS advertising is reviewed and in the next chapter, the theoretical grounds for the suggested inter-relationships between SMS advertising and brand equity dimensions are explained.

2-4-1 SMS advertising (Short message services) Advertising

The purpose of this section is to review the existing literature in SMS advertising. It starts by defining mobile marketing and SMS advertising and explaining their advantages and disadvantages. Then, the rationale for using SMS advertising in the context of this thesis is discussed.

With considerable developments in mobile technology and the prevalence of smartphones, new opportunities have emerged for marketers to communicate to their target audience using this media (Grewal et al., 2016; Shankar et al., 2016; Radder et al., 2010; Xu, 2006). Mobile marketing is defined as “the use of wireless media as an integrated content delivery and direct-response vehicle within a cross-media marketing communications program” (Mobile marketing Association, 2007, p.6). It is also conceptualised as “the two-way or multi-way communication and promotion of an offer between a firm and its customers using a mobile medium, device, or technology,” (Shankar and Balasubramanian 2009, p. 118). Hence, Mobile marketing is a vast platform and includes avenues such as mobile website creation and

maintenance, mobile customer service, mobile couponing, mobile email and messaging (Shankar et al., 2010), two-way SMS exchanges (Baig & Faiza, 2014), Location based advertising (Molitor et al., 2015), mobile display/search advertising (Bart et al., 2014), mobile coupons and gamification of mobile platforms (Hofacker et al., 2016). Adopting mobile marketing provides some advantages for practitioners i.e. Kenny and Marshall (2000) explained that mobile marketing provides brands with opportunities for a pervasive presence and to respond to customers in real time.

Muk & Chung (2015) explained that, generally, two platforms are used to send mobile advertising messages; namely, short message services (SMS) and wireless application protocol (WAP). The former, which is the focus of this study, is a mobile application that allows users to communicate with one another via text messages (Muk & Chung, 2015). Due to the rapid adoption of this application, advertisers can interact and send marketing messages to their target audience (Muk & Chung, 2015). The popularity of text messaging provided marketers with a new channel to reach their target customers (Xu, 2006) and interact with them via a variety of activities such as games, coupons, advertising and information services (Kim & Jun, 2008; Smutkupt et al., 2012; Varnali, 2014). In addition, more and more companies are sending SMS messages (Short messaging service) or MMS messages (Multimedia messaging service) to promote themselves to clients (Okazaki & Taylor, 2008). In addition, many firms also apply text messaging for other purposes such as customer services i.e. reminder of a contract renewal (Shankar et al., 2010; Smutkupt et al., 2012).

One of the forms of mobile marketing is SMS advertising (also known as text message advertising) (Dix et al., 2016; Varnali, 2014; Zhang & Mao, 2008). In characterising the SMS advertising, Barwise & Strong (2002) classified them into two groups of brand building and direct-response advertisements. They maintained that the purpose of the former is to increase brand awareness and salience. The latter, however, is used to produce sales leads or increase

the store traffic for advertised products (Barwise & Strong, 2002; DMA, 2000). Danaher et al. (2015) elucidated that m-coupons are one of the forms of SMS direct-response advertising, which normally provide consumers with price discounts (i.e. percentage discounts) to be redeemed by a specified date. They continued that m-coupons are appealing for advertisers as they are attractive to (hard to reach) younger consumers, inexpensive, capable of sending reasonable amount of information and customizable (i.e. based on consumers' location, personal information and prior purchase). Accordingly, Barwise & Strong (2002) identified six different types of SMS advertising, namely:

- Brand building i.e. to increase awareness,
- Special offer i.e. special discount for students
- Timely media teaser is for when media organizations would like to sell or earn more audience (Barwise & Strong 2002) i.e. when a newspaper invites target customers to buy the last version,
- Product service or information request i.e. when asking SMS receiver to call a specific number for more information about a product or a service.
- Competition i.e. when a limited free gift is offered to the first 100 text senders
- Polls/Voting i.e. when target markets preference of a phenomenon is to be measured by the firm.

The success of SMS advertising is linked to its beneficial features such as its “personal nature”, “near real time delivery” and “relative low cost” (Doyle 2001). In addition, Muk & Chung (2015) identified convenience, discount coupons, and participation in consumers' promotions as other benefits of SMS advertising schemes. Despite such benefits, one of the disadvantages of SMS advertising for consumers is the perceived intrusiveness of messages (Varnali, 2014; Zhang & Mao, 2008). However, brands can address this problem by improving message relevance and including added values such as vouchers and coupons (Muk, 2007; Rettie et al., 2005; Zhang & Mao, 2008).

Jelassi & Enders (2004) explained that generally, mobile marketing campaigns are divided into three groups of push, pull, and dialogue marketing. They further clarified that, push campaigns refer to those messages that are proactively sent from a brand i.e. when companies use databases to identify target audience and send messages to their phones. Pull campaigns on the other hand involve the use of other communication methods such as TV ads or prints to encourage consumers to initiate interactive mobile contacts. Unlike pull and push, dialogue campaigns are focused on long term relations and enriching the bonds with customers i.e. providing coupons as a gift on consumers' birthday (Jelassi & Enders, 2004). Although Jelassi & Enders (2004) divided mobile marketing into three categories, it is commonly categorised into just push and pull advertising (Dix et al., 2016; Park et al., 2008). SMS advertising (subcategory of mobile advertising) is assumed to fall under the push category where advertisers send messages (normally with the prior consent of the consumers) (Dix et al., 2016; Grewal et al., 2016; Liu, 2008; Muk et al., 2007).

In this thesis, the term SMS advertising or text message advertising refers to permission based SMS advertising campaigns aimed at sending advertising and promotional messages (including direct-response advertising messages) to a brand's customers. Such advertisements are generally designed to create a bond between the brand and its customers and encourage customers to stay in contact with the brand. After defining SMS advertising, the next section reviews the studies that view this communication tool as useful for fulfilling various brand building and marketing objectives.

2-4-2 Objectives of using SMS advertising

Mobile marketing was initially used as a passive medium and its ability to interact with target markets was undermined by marketers (Trappey & Woodside, 2005). However, with technology developments, this communication medium has become more interactive and its

offerings vary from “promotions” to “branded catch phrases” (Trappey & Woodside, 2005). Examining the potential of SMS as a communication tool, Pousttchi & Wiedemann (2006) contended that increasing brand awareness, changing brand image, and building customer’s database are the main reasons why firms use SMS marketing.

Various objectives and motivation could influence a company’s intentions to adopt SMS advertising. Okazaki & Taylor (2008) identified four factors;

1-Brand building effect

2-Location based marketing capabilities

3-Privacy/security concerns

4-Technological conditions.

Okazaki & Taylor (2008) highlighted the importance of brand building effects and suggested that it is one of the most important results of text message advertising. In addition, there are a large number of studies showing that SMS advertising could influence the brand building processes of firms (Okazaki & Taylor, 2008; Varnali, 2014; Smutkupt et al., 2012; Barwise & Strong, 2002). In studies by Varnali (2014) and Barwise & Strong (2002) for example, it was shown that SMS advertising can increase brand awareness, with a positive effect on brand attitudes, and customers actions.

As explained earlier, one of the effects of text message advertising is brand awareness. It is proved that this form of communication can increase the propensity to recall brands. Barwise & Strong (2002), found that from a group of people introduced to 21 different brands during their test period, 69% remembered more than 11 brands and 14% managed to remember more than 16 brands out of 21.

Similarly, Trappey & Woodside (2005) found that text message advertising increased the number of people who watched a specific show. Furthermore, Smutkupt (2012) and Barwise & Strong (2002) proved that text message advertising could increase brand awareness and influence brand equity. In a similar vein, Varnali (2014) confirmed that SMS advertising can influence consumers' attitude toward brands and, Drossos et al. (2014) found a positive relationship between text messages advertising and consumers' intentions to purchase products/services.

In brief, this section explained that SMS advertising has potentials to influence brands (i.e. by increasing brand awareness (Barwise & Strong, 2002) or influencing dimensions of CBBE (Smutkupt et al., 2012)). Such effects may be attributed to the unique characteristics of SMS advertising. Hence, this chapter continues by highlighting the advantages of using this communication tool.

2-4-3 Advantages of Text message advertising

Mobile devices are very personal communication tools (Bacile et al., 2014) and most users keep them within arm's reach (Grewal et al., 2016). They thus grant marketers constant access their consumers and the opportunity to communicate with them directly (Grewal et al., 2016). As a result, many marketers believe that SMS advertising is more effective than traditional advertising in terms of reach, costs and retention (Almossawi, 2014; Bamoriya and Singh, 2012). In addition, Yeshin (1998) suggested that, text message advertising is regarded as a form of direct telemarketing with advantages such as: measurability, precision, customization, personalisation, and targeting.

In a similar vein, Doyle (2001, pp.275-276) showed that the use of SMS advertising is beneficial for marketers due to its:

- "personal nature" (the ability to contact the specific consumer at almost any time)

- “near real time delivery” (the fact that the recipient would be aware of the SMS very quickly after it is sent, if the phone is on),
- “relative low cost” of sending text message (compared to other means of mobile communication),
- “Message forwarding,” (individuals can forward the desirable messages to peers).
- “Location based potential” (sending messages to specific locations)

Trappey & Woodside (2005) suggested that a text message as opposed to traditional direct marketing methods could go viral when it is forwarded to customers’ families, friends, or colleagues. Yet, Kamphuis & Ramnarain (2012) contended that the most important feature of SMS advertising for marketers is the high reading ratio. He continued that generally, 99% of text messages are read by consumers and about 90% are checked within three minutes of receiving them. In addition, young consumers (youth generation) are likely to adopt SMS advertising in a short period of time (Holmes, 2001; Wouters & Wetzels, 2006).

Trappey & Woodside (2005) argued that this form of communication does not share some of the disadvantages of other telemarketing forms, i.e. high costs. Hence, SMS advertising is a cheaper alternative to the more expensive traditional methods of marketing (Trappey & Woodside, 2005). Therefore, the unique characteristics of text message advertising (i.e. immediate, customized, direct and personal (Kondo et al., 2008)), enables firms to fulfil their consumers requirements more efficiently (Anckar & D’Incau, 2002; Smutkupt et al., 2012). However, it is noteworthy that as mobile phones are personal, consumers’ may expect more personal or relevant text messages when subjected to SMS advertising campaigns (Barwise & Strong 2002).

2-4-4 Disadvantages and limitations of text message advertising

Despite the advantages of SMS advertising, there are also some limitations that must be considered. As a form of push based advertisement, SMS advertising may be seen as a waste of time, especially if they are delivered in an inappropriate context (i.e. wrong time of the day) (Lin et al., 2016). Furthermore, Due to the personal nature of mobile phones, sending advertising messages to customers can lead to perceptions of irritation, annoyance, privacy concerns, lack of control and time loss (Bruner & Kumar, 2007; Merisavo et al., 2007; Shin and Lin, 2016; Yang et al., 2010). Such irritations and perceptions can result in negative associations toward the brand (Barwise & Strong 2002) and hinder the recipients from responding favourably to brand advertisements (Tsang et al., 2004; Yang et al., 2010).

Trappey & Woodside (2005) identified following drawbacks for SMS advertising:

- “Interference to consumers’ privacy”,
- “Irrelevance of messages”,
- “Timeliness”,
- “Information overload.”

Additionally, Shareef et al. (2016b) pointed out that compared to other means of mobile advertising such as display advertising, SMS advertisements face some constraints such as difficulty in transferring enjoyment due to limitations of text messages.

Therefore, it is concluded that one of the limitations of text message advertising is that SMS is not a rich medium and is better used as a complimentary channel in addition to other marketing communication tools.

Moreover, it is suggested that without receiving the consumer’s consent, SMS advertisements may be ineffective and may even cause damage to brand equity (Barwise & Strong, 2002) and produce a negative brand experience (Mitchell, 2003). However, it is noteworthy that there is

a fair chance of receiving permission from consumers in the UK, based on a study by Barwise & Strong (2002). They suggested that when people were asked whether they would give permission for text advertising, twenty five percent conceded, and this percentage is higher among younger mobile users. Therefore, there is a promising base for companies who offer PBMA (permission based mobile advertising).

Although Barwise & Strong (2002) believe that sending unauthorized text messages might harm the firm's brand equity, Smutkupt et al. (2012) argued that when several unsolicited advertising messages are sent to consumers, they grow used to the noise and are tolerant of advertising messages. They develop positive associations toward some messages and in turn, this increases the brand equity for the firms (Smutkupt et al., 2012).

In sum, it is important for marketers to understand when SMS messages are perceived as intrusive by customers. Trappey & Woodside (2005) identified three conditions that reduce the sense of intrusiveness; firstly, the advertisement should be sent after prior consent is obtained from the recipient; secondly, text messages should be relevant to individuals; thirdly, SMS advertising should include some sort of benefit to the customers such as coupons. Additionally, it is proposed that obtaining "explicit" permission prior to sending SMS adverts increases the chance of receiving responses from targeted customers considerably (Barwise & Strong 2002).

2-5 Conclusion

From a review of previous studies, this chapter clarified research topic and provided a background for the theoretical framework.

The literature review started by conceptualising brand equity and discussing its advantages for managerial practices and academia. Then, various perspectives of brand equity were presented and consumer based brand equity was explained. Aaker's (1991) four dimensions of brand awareness, perceived quality, brand association and brand loyalty were elaborated, and shown

to be the most widely accepted dimensions of consumer based brand equity in the traditional (offline) contexts.

After explaining brand equity in the offline context, the significance of this concept in the online environment was highlighted. It was shown that applying traditional dimensions in a digital contexts without considering the underlying differences between the two environments could be misleading. Therefore, literature on brand equity for websites and online brands were reviewed to identify the relevant dimensions. These dimension were then elaborated and clarified.

After reviewing brand equity and the relevant dimensions, the thesis proceeded to explain the role of advertising in creating CBBE. Subsequently, the chapter maintained that since SMS advertising is a subset of advertising, it is possible to assume correlations between SMS advertising and consumer based brand equity dimensions. Then, the literature on SMS advertising was reviewed. The advantages and disadvantages of applying this form of advertising were discussed and the penetration of text message advertising in the UK was described. It is shown that SMS advertising can present some opportunities due to its characteristics such as ‘availability’, ‘simplicity’ and ‘low costs’ (Doyle, 2001), however, it may pose some risks and disadvantages as well, such as annoying consumers. The next chapter builds up on this review to propose a new model for examining whether such advantages and disadvantages actually influence brands.

Reviewing literature revealed that there are gaps in the knowledge that require further research:

- There are papers that call for future studies in the online context (Keller, 2016; Rana et al., 2015; Swaminathan, 2016; Wang et al., 2016). For example, Gürhan-Canli, Hayran, & Sarial-Abi, (2016) suggested that due to the fast-paced technological advancements and macro changes in the online businesses environments, future studies should examine

the important brand attributes in the digital context. Furthermore, Keller (2016, pp 11-13) identified areas that require further research such as “understanding pure digital brands”, “understanding pricing power and switching behaviour” , “understanding value of brands and branding in digital world”, “understanding how to manage customer relationship” in the digital context and what is the role of advertising in consumers’ decision journey for online brands.

- The relationships between SMS advertising and online brand equity dimensions (for loyalty programs active in daily deal sites) in the context of UK have not been studied . This is important because new reports such as eMarketer (2016 a) show that consumers prefer SMS as a communication tool for loyalty messages. Hence, further research can be beneficial in clarifying the potential relationships between SMS advertising and dimensions of consumer based brand equity for online brands on a loyalty program (in daily deal sites market).
- After reviewing the literature on SMS advertising, it is found that majority of studies investigating the text message advertising were conducted before 2010. Furthermore, majority of the studies investigating SMS advertising viewed consumers’ attitude from two perspectives either from the attitudes toward SMS advertising in general (attitude toward an object) (i.e. Aslam et al., 2016; Haghirian et al., 2005; Tsang et al., 2004; Ul Haq, 2012) or toward a specific SMS advertisement (object) (Drossos et al., 2007; 2013; Varnali, 2014). However, the attitudes of consumers towards of using SMS advertising for brands has not received as much attention. This is despite the fact that this form of attitude (attitude toward the act) can be helpful in determining consumers’ evaluations of using text messages after opting-in to SMS advertising campaigns. Especially, in the context of this study, where such attitudes can determine the consumer-brand

relationship. Furthermore, previous studies do not indicate the factors that are more influential in affecting attitudes toward using SMS advertising.

- While the hierarchy of effects model is an important model on the effect of advertising, previous research has not established how SMS advertising results in changing consumers' perceptions about brands.
- It was shown that consumer based brand equity dimensions vary in offline and online contexts. However, previous studies investigating the effect of SMS advertising on brand equity overlooked such differences.
- While the effects of SMS advertising in brand building and awareness creation has been demonstrated through previous studies, these studies do not show whether the attitude toward using SMS advertising and incentives assessments both connect with brand associations and brand image for online brands. Furthermore, Varnali (2014, p.339) suggested that "the relevant literature still lacks consensus on how SMS ads influence consumer attitudes, and how this influence is generated."
- There are discrepancies between the identified dimensions of online brand equity i.e. Rana et al. (2015), Rios & Riquelme (2008; 2010) and Barreda (2014). Therefore, there are questions as to whether such models and the associations would be different if applied in other sectors/context. In addition, the fact that the significance of brand trust as a dimension of brand equity was approved by Christodoulides, et al.(2006), Rana et al. (2015) and Rios & Riquelme (2010); yet, rejected by Rios & Riquelme's (2008) requires further attention. Thus, there is a need for further investigation into the importance of brand trust in online brand equity models.
- Comparing the Christodoulides' et al. (2006) ORS model and other proposed models of brand equity such as Page & Lepkowska-White (2002); one may ask, why factors such as online experience are considered as features that influence brand equity in one model,

while they are considered as a dimension of brand equity in the other? Additionally, looking at brand equity from the relational point of view (in ORS model), raises questions concerning why brand loyalty, which is one of the main drivers of consumer-brand relationship, has no part in the proposed model

In the next chapter, the important characteristics of text message advertising and the factors that affect attitude toward using them are identified in order to develop relevant hypotheses. Subsequently, the theoretical framework is developed to examine whether there are valid relationships between these factors and dimensions of online brand equity.

Chapter 3 - THEORETICAL FRAMEWORK

3-1 Introduction

The previous chapter reviewed the literature on brand equity and SMS advertising. In this chapter, a theoretical framework will be presented to outline the associations between:

- 1) SMS advertising characteristics and consumers' attitude toward using SMS advertising (ATUSA).
- 2) Dimensions of online brand equity such as brand awareness, brand loyalty, and brand trust based on the Hierarchy of effects model.
- 3) Attitude toward using SMS advertising and two dimensions of online brand equity namely, brand awareness and brand trust.
- 4) Incentives assessments and dimensions of online brand equity specifically incentives assessments and brand loyalty.

This chapter begins by explaining the potential contributions of this thesis. Subsequently, the chapter reviews the expectancy-value theory to highlight the concept of attitude as a core concept in understanding consumer motivation. Next, the antecedents of attitude toward using SMS advertising are reviewed and discussed. Then, drawing on the theory of hierarchy of effects (Lavidge and Steiner, 1961), this thesis shows the inter-links between the identified dimensions of online brand equity. This study posits that attitude toward using SMS advertising and perceived incentives are linked to specific online brand equity dimensions. Finally, a conceptual model and hypotheses are developed and presented.

3-2 Theoretical Framework

This research makes an important academic contribution by exploring possible relationships between SMS advertising and the dimensions of online brand equity in the UK. The findings contribute to theory by investigating the antecedents of attitude toward using SMS advertising

(ATUSA) – based on expectancy-value theory. This study re-evaluates the effects of previously identified SMS advertising characteristics such as informativeness and irritativeness on ATUSA in a new context (i.e. United Kingdom). Hence, the results can inform future research on text message advertising and its consequences and implications on brands. Furthermore, the present study develops a new model – using hierarchy of effects model—to demonstrate the links between SMS advertising and the dimensions of online brand equity. Understanding these relationships could help brand managers to measure the effect of their SMS advertising campaigns on brand equity. Furthermore, by identifying the dimensions of online brand equity that are linked to text message advertising, brands could apply SMS advertising to manage those dimensions of brand equity. Moreover, as the selected brands are purely digital brands, the research highlights the associations between the online consumer based brand equity dimensions – i.e. brand awareness, brand trust, brand value and brand loyalty. In this section, previous studies on the impact of text message advertising on brand equity dimensions are reviewed after which relevant hypothesis are developed.

Mobile advertising enables brands to provide consumers with relevant offers (Grewal, Bart, Spann, & Zubcsek, 2016). SMS advertising is a subcategory of mobile advertising and is used to support customer relationship activities (i.e. sending information about new products, mother's day reminders and promotions) (Dickinger et al., 2004). Furthermore, previous studies have shown that SMS advertising could influence consumers' perceptions about the brand (Dickinger et al., 2004; Smutkupt et al., 2011; 2012; Varnali, 2014), either positively (i.e. when customers enjoy receiving relevant offers) or negatively (i.e. when consumers find themselves overwhelmed with the invasion of their privacy). Therefore, it is important for firms to understand how SMS advertising campaigns correlate with their consumers' perceptions about their brand.

Okazaki & Taylor (2008) recognised brand building as one of the main effects of mobile advertising. A similar effect could be attributed to SMS advertising, which is a subset of mobile advertising. Previous studies have demonstrated that SMS advertising could influence brand awareness (Barnes, 2002; Smutkupt et al., 2011), brand equity (Smutkupt et al., 2011; 2012) and attitude toward the brand (Varnali, 2014).

Although applying text message advertising could be beneficial for brands, there are also limitations associated with this form of communication that must be considered. For example, Sinisalo and Karjaluo (2009) argued that this medium has a limited content capability. Moreover, Bamoriya and Singh (2012) maintained that excessive use of SMS advertising deters consumers from adopting them. Hence, results of this research are helpful in understanding whether text message advertising—with all its limitations—could relate to online brand equity dimensions.

To elucidate the effect of text message advertising on brand equity and to address the research objectives, it is necessary to understand the relationship between the characteristics of SMS advertising and consumers' attitudes and decisions toward using SMS advertising. Then, the study examines whether a relationship exists between the dimensions of online brand equity and consumers' attitude toward using SMS advertising as well as one of its antecedents (namely, incentives assessments). Accordingly, this chapter develops a new theoretical framework and relevant hypotheses.

3-3 Expectancy-Value theory and attitude toward using SMS advertising

For text message advertising campaigns to be effective, it is important to first identify the factors that influence consumers' motivations towards SMS advertising messages. To address this issue, motivational theories—which aim to explain the reasons behind consumers' actions

(Wiklund, Davidsson & Delmar, 2003)—could be helpful. One of the central constructs of motivational theories is attitude (Wiklund et al., 2003). Consequently, attitude is considered as one of the major factors that impacts consumers' intentions and behaviours with respect to an object or an act. In addition, numerous papers have identified and examined the antecedents and consequences of consumers' attitudes and this serves to highlight its significance in understanding consumer behaviour. Hence, this section continues by defining attitude and proceeds to, demonstrate the relationships between attitude and its antecedents – based on expectancy-value theory.

3-3-1 Attitude

Fishbein & Ajzen (1975, p.6) defined attitude is a “learned predisposition to respond in a consistently favourable or unfavourable manner with respect to a given object.” Furthermore, Ajzen (2001, p.28) clarified that attitude is considered as a “summary evaluation of a psychological object” that can be expressed by attribute dimensions such as good-bad, harmful-beneficial, pleasant-unpleasant, likable-dislikeable.” Similarly, Vogel and Wanke (2016, p.2) defined attitude as “a summary evaluation of an object of thought”, and explained that an attitude object could be anything that a person holds in mind, for example, it can be a concrete object such as pizza or abstract such as attitudes towards freedom of speech. Such definitions drawn from sociology, psychology and marketing literatures suggest that attitude could be considered as an evaluative response to an object (or behaviour) (Vogel & Wanke, 2016). For example, in the context of advertising, Pollay & Mittal (1993) defined it as “summary evaluations of objects (e.g. advertising is a good/bad thing)”.

Fishbein & Ajzen (1975) asserted that the term attitude is used to connote an individual's location in a bipolar evaluative or affective dimension of an object, action, or event. In simpler terms, they considered attitude as a general feeling of favourableness or unfavourableness in

response to stimulus. For example, when consumers are asked about a brand, attitude toward that brand shows the consumers' overall evaluations (favourableness) about the brand. Subsequently, it is possible to deduce that attitude refers to general evaluative reactions for or against an object or action (Allen, 1992; Muk, 2007). It should be noted that beliefs are one of the main (if not the only) antecedents of attitude, and this has been demonstrated and discussed in detail by extensive studies such as Ajzen, (2015), Malhotra (2005), Vogel and Wanke, (2016).

3-3-2 Beliefs

Fishbein & Ajzen, (2010, p. 221) conceptualised belief in terms of “subjective probabilities.” That is, an individual's perceived likelihood that an object or a behaviour is associated with certain attributes or outcomes (Fishbein & Ajzen, 2010). For example, recipients of social media advertisements may believe that this form of communication could provide them with useful information, benefits or some form of entertainment (Dao, Le, Cheng & Chen, 2014). Accordingly, to measure consumers' beliefs, in this case, respondents would be asked to rate statements such as social media advertisements are entertaining, interesting or informative (Dao et al., 2014). This is in line with Fishbein & Ajzen (1975), who explained that beliefs refer to the attributes that one associates with an object.

Furthermore, Fishbein (1963) explained that a person's attitude toward an object can be predicted with a high degree of accuracy based on the individual's beliefs about the ‘attitude object’ and the evaluative weight of those beliefs. Hence, it is possible to conclude that attitude is a distinct construct from beliefs (Fishbein, 1967; Fishbein & Ajzen, 1975). Investigating the beliefs that affect attitude toward advertising, Pollay & Mittal (1993) contended that attitudes and beliefs are distinct concepts and the latter refers to “descriptive statements about object attributes (e.g. advertising is truthful) or consequences (e.g. advertising lowers prices)” (p.101),

while the former refers to “summary evaluations of objects (e.g. advertising is a bad thing)” (p.101). To clarify the relationship between beliefs and attitude, this thesis continues by explaining the expectancy-value theory.

3-3-3 Expectancy-value theory

Expectancy-value theory is one of the widely accepted models that demonstrate the relationships between attitude and its antecedents (Ajzen & Fishbein, 2000; Fishbein & Ajzen, 1975; 2010). According to this theory, “a person’s attitude toward an object is determined by the subjective values of the object’s attributes in interaction with the strength of beliefs associating the object with the attributes” (Malhotra, 2005, p.477). Accordingly, the following equation demonstrates the relationship between attitude, beliefs, and the evaluative weights of those beliefs.

$$A = \sum_{i=1}^n (b_i e_i)$$

A is attitude toward an action, object or event, b refers to beliefs about object (action) attributes and e refers to evaluations of the attributes or consequences (Fishbein & Ajzen, 1975)

Based on this equation, a person’s attitude toward an object is estimated by multiplying the strength of beliefs about the object’s attributes and subjective probability that the object has on those attributes; then, summing up the products all attributes (Fishbein & Ajzen, 1975). It is noteworthy that the terms “attribute” and “consequences” are used in a general term and refer to any aspect of the object and behaviour i.e. characteristics, values, object, concepts or goals linked to the object or behaviour (Fishbein & Ajzen, 1975). Therefore, this theory demonstrates that beliefs represent the information that people associate with the attitude object; such information serves as the basis on which attitudes toward that object are developed (Fishbein & Ajzen, 2010).

While people may hold numerous beliefs about an object, only a small number of such beliefs effectively influence attitude (Fishbein & Ajzen, 1975; 2010). Hence, Fishbein & Ajzen (1975) claimed that only salient beliefs—the ones that come readily to mind—serve as determinants of attitude. However, in recent studies, the term salient is replaced with accessible beliefs. The latter refers to the beliefs that spontaneously come to individuals' mind when they are in the actual or symbolic presence of the attitude object (Fishbein & Ajzen, 2010).

The expectancy-value and multi-attribute attitude models have been the basis for prominent research theories. For instance, the relationship between the consumers' attitude and the beliefs that contribute to those attitudes have been the backbone of theory of reasoned action (TRA) (Fishbein & Ajzen, 1975), theory of planned behaviour (TBP) (Ajzen, 1991), and technology acceptance model (TAM) (Davis, 1989). These theories demonstrate the relationships between beliefs, attitude, and intentions. Furthermore, these theories have been adopted in previous studies to explain the influential factors in consumers' intentions regarding various objects or behaviours such as using IT (information technology) and e-commerce (Lee, 2009) and SMS advertising acceptance (Muk & Chung, 2015; Xu 2006).

It is noteworthy that, Ajzen and Fishbein (1969) distinguished between attitude toward an object and attitude toward an act. They explained that the latter pertains to an individual's "attitude toward performing a particular act in a given situation with respect to a given object" (Ajzen and Fishbein, 1969, p.402). This attitude toward an act is apparent in studies such as Davis (1980), where he measured consumers' attitude toward accepting a new technology. Davis (1980) showed that attitude toward an act could be measured by affective evaluations such as the degree to which consumers find acceptance of the technology as wise/foolish, good/bad, harmful/beneficial, negative/positive.

Extending the expectancy-value theory for behaviours and acts; Ajzen and Fishbein (1969) demonstrated that, similar to attitude toward an object, attitude toward an act is also predictable using the beliefs about the act and the evaluative weight of those beliefs. Accordingly, it is maintained that attitude toward an act can be estimated by multiplying individuals' evaluation of beliefs about the consequences of the act by the subjective probability that the behaviour leads to those consequences and then summing up the products for the total number of beliefs (Fishbein & Ajzen, 1975). For example, when de Leeuw et al. (2015) studied the factors that affect students' green product consumption, they demonstrated that behavioural beliefs about green products have a direct effect on attitude toward the behaviour, which in turn leads to intentions and behavioural acts. Similarly, Xu (2006) demonstrated that consumers' attitude toward the behaviour (using SMS advertising) is determined by beliefs about mobile advertising (i.e. receiving informative, entertaining and irritating messages). After highlighting the differences between attitude toward an object and act, it is necessary to clarify the standpoint of the current study.

The majority of the studies that investigated SMS advertising and its consequences either examined the consumers' attitude from the medium (channel) perspective – i.e. attitude toward SMS advertising in general (Haghirian et al., 2005; Tsang et al., 2004; Ul Haq, 2012); or from a specific advertisement perspective—attitude toward a particular text message (Drossos et al., 2007; Varnali, 2014). This research however, suggests that to examine the influence of SMS advertising on brand equity, adopting attitude toward using SMS advertising (attitude toward an act) is justifiable in the context of this thesis for the following reasons:

Firstly, SMS advertising, in the context of this research, is used as part of a customer relationship management (CRM) and loyalty programs ultimately designed to encourage consumers to stay connected with brands. Therefore, to investigate how such SMS advertising campaigns could affect the brand, it is more relevant to measure the degree to which consumers

have a positive (negative) attitude toward using those advertising text messages. For instance, instead of asking consumers to evaluate SMS advertising in general or their attitude toward a specific text message, it would be more insightful to see whether they have (un)favourable attitudes toward the text messages that they receive from the brand. Furthermore, attitude toward using SMS advertising is considered to be a better construct to understand the consumers' attitude toward a behaviour (in this case participating in SMS advertising campaigns). Table 3-1 demonstrates a sample of SMS messages sent by brands.

Secondly, attitude toward using SMS advertising is a better indicator of the effectiveness of loyalty programs as it is more functional in demonstrating the accumulated effect of brands' text message advertising activities towards encouraging consumers to stay in contact with the brand.

Thirdly, although the effect of advertisements on brand perceptions have been studied extensively in the past, the effect of attitude toward using CRM and loyalty programs (in this case using SMS advertising) on brand perception is rarely examined. Hence, conducting this research could further clarify the strength of the antecedents and consequences of SMS advertising as a loyalty program.

Thus, this thesis adopts Pollay & Mittal's (1993) definition of attitude toward an object and extends it to the attitude toward a behaviour. Accordingly, attitude toward using SMS advertising campaigns is defined as "an individual's summary evaluations of using SMS advertising." Hence, based on expectancy-value model, it is concluded that there are consumers' beliefs about using SMS advertising that could influence their attitude toward using this communication tool. Section 3-4 explains those beliefs further.

<p>[xx]: We've joined forces with the NSPCC to launch a nationwide programme to help parents understand a child's online world, so they can have regular chats about safety.</p> <p>Find out more: [Link] or call our free online safety helpline on [phone number]</p> <p>Terms apply. To stop texts call [phone number]</p>	<p>[XX]: need motivation? Meet the start-ups built in days.</p> <p>In the month's business eNews we find out about London's coolest self-starting music studio. Explore the importance of cloud technology to small businesses. And talk social media makeovers.</p> <p>Read all at [link]</p> <p>Terms apply. To stop texts call [phone number]</p>	<p>Mehran, make calls over WiFi, check out the 4G action Cam, pick up 3 for 2 accessories and more in this month's newsletter.</p>
		<p>Mehran, get tickets to events you'll love, plus lots of more entertainment and great offers. See for yourself [link – includes xx name]</p>
		<p>[xx]: win big and get a tech surprise.</p> <p>Win £1000 of vouchers to spend at Currys PC world. You will have chance to win again next week.</p>
		<p>Open the app to enter [link]</p>
<p>Hi Mehran, fancy a brand new phone? As a treat from [xx] get up to £20 off a new phone when you upgrade to a 24 month plan. Why not try one of our extra plans- you'll get double speed UK 4G data and can even use your minutes and texts in the UK and Europe.</p> <p>Pop into your local [xx] store, call [phone number] or visit [link] and get your new phone today.</p> <p>Terms apply. Text Stop to [phone number] to opt out.</p>	<p>Hi Mehran. You get tons of benefits just for being with [xx]. Make sure you make the most of them, check them out now [link]</p>	<p>[xx]: Fancy a break from all that Christmas cooking?</p>
	<p>Mehran, rent the latest films for just £1 with [xx], win FA Cup final tickets and loads more. Take a look [Link]</p>	<p>Get 35% off when you spend £35 online with Domino's pizza.</p>
	<p>[xx] Action Cam has launched. To find out more and win your own epic £1000 adventure click here [Link]</p>	<p>[blank] just open the [xx] app to get your code. Offer ends 4 January.</p>
	<p>[xx] scents you'll love at a massive saving.</p> <p>Get £10 off a £20 spend at the Body Shop in-store and online</p> <p>[blank] open the app here [link].</p> <p>Terms apply. To stop texts, call [phone number]</p>	<p>Terms apply. To stop texts call [phone number]</p> <p>50% OFF tickets for ED BYRNE! See the star of MOCK THE WEEK & LIVE AT THE APOLLO at the Cliffs Pavilion, Southend, Nov 20. Book now from Fun Finder [link] or call [phone number] to opt out Text [Phone number]</p>

Table 3-1 Illustration of some of the SMS advertisements.

Previous studies have questioned comprehensiveness of expectancy-value theory in number of areas that need to be highlighted. While adopting the expectancy-value perspective of attitude identifies cognitive beliefs as the antecedents of attitude (Fishbein & Ajzen, 1975; Ajzen, 2001), there are scholars who argued that consumers affects and emotional states could also influence their attitude (Malhotra, 2005).

Before presenting the arguments, it is necessary to distinguish between cognitive beliefs and affects. Eagly and Chaiken (1998) explained that the former reflects the thoughts that link or associate the attributes to attitude object, while affect manifests the associated moods, feelings and emotions and sympathetic nervous systems in relation to or independent of the attitude object. They further emphasized that this affect dimension should not be confused with attitude, affect distinctively shows the emotions and feelings (such as moods), while attitude is the overall evaluation of an object which is not necessary rooted in the affect (Eagly and Chaiken, 1998). Based on this conceptualisation of cognitive beliefs and affect, Malhotra (2005), Ajzen (2001), Eagly and Chaiken (1998) and Brown and Stayman (1992) maintained that affect as well as cognitive beliefs can influence the consumers' overall evaluation and attitude toward an object or act. This is in line with Fishbein & Ajzen (2010) who identified affects as background factors that could influence the beliefs that are accessible to individuals, and their overall evaluations and attitude. For example, in investigating the antecedents of consumers' adoption of mobile applications, Shen (2015) demonstrated that individuals' mood and feelings such as playfulness in relation to the application affects their attitude.

In addition to cognitive beliefs and affects, Eagly and Chaiken (1998) suggested that an individuals' attitude can also be derived from his/her previous behaviours. To justify this view, they draw on Bem's (1972) self-perception theory and the learning theorists' stimulus-response behaviour. Self-perception theory asserts that people adopt attitudes that justify their prior behaviours (Bem, 1972; Fiske and Taylor, 1991). Adopting this theory, Poortinga (2013) for

example, demonstrated that consumers' attitude toward a government policy changed after they were required to conform to certain new behaviours in reaction to a new policy (i.e. paying for plastic bags). Furthermore, based on learning theorists, when overt behaviours elicited by attitude object are rewarded or punished, implicit evaluative responses (attitudes) are formed with regard to the attitude object (Eagly and Chaiken, 1998). Subsequently, it is possible to assume that previous behaviours can lead to the formation of attitudes toward an object or act.

Although there are limitations in using expectancy-value theory, it is justifiable for the purpose of this study because it has been applied successfully to show the associations between beliefs and attitude in advertising research. For example, Pyun & James (2011) demonstrated that attitude toward advertising through sports is a function of beliefs such as product information, hedonism, good for the economy and social role and image. Furthermore, Xu (2006) proved that four beliefs – namely, informativeness, entertainment, irritation, and credibility— influence consumers' attitude toward accepting mobile advertising. Thus, using this theory, the present research develops hypotheses to show the associations between various beliefs about SMS advertising and attitude toward using SMS advertising.

3-4 Mobile marketing specific characteristics

Mobile marketing and internet marketing are very similar in many respects, for example they are both developing technologies with ability to send personalised, responsive and immediate message (i.e. text, images) to target audiences (Tsang et al., 2004). Hence, it is possible to assume that theories that apply to internet marketing are also applicable in mobile marketing. However, the idea of adapting internet marketing literature in mobile marketing has been disputed by some scholars. For example, Wang & Li (2012) explained that one of the main shortcomings of models adapting ecommerce theories to mobile marketing and SMS advertising research is that the specific characteristics of the mobile advertising channel like ubiquity and location based availability are overlooked in models that focus solely on internet

advertising models. Therefore, it is necessary to include these features and characteristics in developing and proposing a comprehensive model (Wang & Li, 2012). In this study, a model that incorporates both common and distinctive characteristics of the mobile advertising is developed. After reviewing the relevant literature, two advertising elements are identified that are suggested to influence consumers' attitude toward using text message advertising:

1- Message characteristics and attributes related to advertising content such as informativeness, entertainment, irritativeness (Aslam et al., 2016; Dickinger et al., 2004; Nwagwu & Famiyesin, 2016; Riquelme et al., 2011; Xu, 2006), and perceived incentives (Aslam et al., 2016; Riquelme et al., 2011). While previous studies have proved a connection between entertainment and attitude toward SMS advertising, with recent technological advancements in mobile communications and limitations of SMS as a medium, this form of advertising is becoming less common. Furthermore, reviewing various advertising text messages sent from the brands under study, no playful message was found. Therefore, this study cannot evaluate the relationships between Entertainment and attitude toward using SMS advertising.

2- Attributes related to SMS advertising channel, such as irritativeness, consumer control, and permission, (Aslam et al., 2016; Dickinger et al., 2004; Riquelme et al., 2011; Ul Haq, 2012). Irritiveness is the only construct that is included in both categories. This is because it can be attributed to message characteristics (i.e. overly manipulative and irrelevant messages) or the advertising channel (i.e. receiving unwanted messages on one's phone).

In the following section, each source is explained and the hypotheses are formed based on the expectancy-value theory—wherein beliefs (about either message characteristics or SMS advertising channel) are linked with attitude toward using SMS advertising.

3-4-1 Message characteristics

Kavassalis et al. (2003) explained that in order to accept SMS advertising, consumers need to find some benefit in using it. Tsang and Liang (2004) explained that content (informativeness) and form (entertaining) of SMS advertisements are considered as important predictors of advertisements value and positively influence consumers' attitude. They pointed out that (i) Informativeness refers to the quality of the information consumers receive; (ii) Entertainment is the enjoyment and pleasure that consumers experience when encountering SMS advertisements. Despite such benefits, they argued that irritations linked to SMS advertising can have a negative effect on consumers' attitude toward the advertisements. These associations between characteristics of SMS advertising content (i.e. informativeness, entertaining and irritativeness) and consumers' attitude toward the advertisements have been confirmed by other studies such as Almossawi (2014), Haghirian and Madlberger (2005), Xu, (2006), Aslam et al. (2016) and Nwagwu & Famiyesin (2016). Additionally, consumers may perceive benefits in receiving incentives from SMS advertisements (Aslam et al., 2016; Riquelme et al., 2011; Ul Haq, 2012). In this section, the application of these relationships in the context of this research is examined and relevant hypotheses are developed.

3-4-1-1 Informativeness

Informativeness is conceptualised as the ability of advertisement to effectively convey useful and helpful information to consumers (Ducoffe, 1996). Extending this concept in SMS advertising, Almossawi (2014) suggested that informativeness refers to the usefulness and helpfulness of information that is conveyed to the customers using text message advertising. Kotler and Keller (2006) elaborated that informative advertisements can be used to enlighten consumers about new product, new features or price changes. Using SMS as a communication channel allows brands to inform customers about their activities, products, and available

exclusive promotions. It should be noted that informative advertisements should possess qualitative attributes like accuracy, timeliness and usefulness (Siau and Shen, 2003).

It is suggested that customers react positively to useful information in text message advertising (Aitken et al., 2008). So, a positive relationship between informativeness and attitude toward SMS advertising has been substantiated by previous studies such as Nwagwu & Famiyesin (2016), Tsang et al. (2004), Almossawi (2014) and Dharmadasa & Alahakoon (2014). Hence, it is possible to hypothesise a link between the extent to which consumers find SMS advertisements from brands informative and their attitude toward using such advertisements. As such, this study hypothesizes that:

H1) There is a positive relationship between informativeness and attitude toward using SMS advertising.

3-4-1-2 Irritativeness

One of the drawbacks of SMS advertising that influences consumers' attitudes negatively is the tendency of campaigns to be perceived as irritating. An irritating advertisement is one that is "provoking, causing displeasure and momentary impatience" (Aaker & Bruzzone 1985, p. 48). Moreover, irritativeness is suggested to be more negative than dislike (Aaker & Bruzzone, 1985) and less negative than offensiveness (Bauer and Greyser, 1968). Nonetheless, Ducoffe (1996) explained that consumers may view annoying, offensive, and overly manipulative advertisements as irritating and undesirable. SMS advertising can be confusing, distracting and overwhelming owing to the volume and variability of information they provide (Stewart and Pavlou, 2002; Bruner and Kumar, 2007). Apart from the amount of information (which may lead to confusion and negative reactions by consumers) (Xu, 2006; Haghirian and Madlberger, 2005), unwanted and unsolicited messages commonly known as spams are another source of irritation to consumers (Dickinger et al., 2004). This feeling of irritation can negatively

influence the consumers' attitude toward the advertisements (Luna Cortez and Royo Vela, 2013). From the foregoing discussion, SMS advertising irritativeness can be attributed to the content of the advertisement (i.e. manipulative and offensive advertisement) as well as the communication media (i.e. spam messages).

Van der Walddt et al.(2009) explained that while informativeness and entertainment are positively correlated to consumers' attitudes, irritation can impose a negative influence (Tsang et al., 2004). In general, intrusiveness is expected to negatively influence the value of advertising and may lead to the rejection of advertisement by consumers. The importance of Irritativeness has been argued by different scholars, however while scholars like Luna Cortez and Royo Vela (2013) found it as the most important factor affecting consumers' attitude, the impact was found not to be as imperative as findings regarding the role of informativeness and entertainment by Haghirian and Madlberger (2005).

Although previous studies suggest that using SMS advertising can cause irritation and consequently impose a negative influence on consumers' attitude (Tsang et al., 2004; Varnali, 2014; Aslam et al., 2016), there are studies that contradict this view. For example, in an investigation of factors affecting Iranian consumers' toward SMS advertising Keshtgary and Khajehpour (2011) showed that SMS advertising is not perceived as irritating. Consequently, it is clear that sense of irritation varies in different contexts. Therefore, it is necessary to understand whether there is any associations between perceived irritativeness of advertising text messages and the consumers' attitude toward using SMS advertising. Thus, it is hypothesized that:

H2) There is a negative relationship between perceived irritativeness and consumers' attitude toward using SMS advertising.

3-4-1-3 Incentives assessment

Online companies can differentiate their offerings from their competitors by providing sales promotions and incentives (Valassis, 2011). Sales promotions (such as special discounts sent by SMS messages) are generally considered as short-term incentives used to encourage sales (Kotler and Armstrong, 2012). Crespo-Almendros & Barrio-Garcia (2016, p.34) defined it as "communicate the delivery—to an entity or an individual—of an added bonus to the service during a given period of time, as a means of achieving pre-planned communications objectives." Furthermore, it is defined as: "a set of stimuli that are offered sporadically, and it reinforces publicity actions to promote the purchasing of a certain product" (Alvarez and Casielles, 2005, p.56). In the mobile context, they are viewed as "the benefits derived from the mobile ads such as price discounts, free SMS, free videos, ring tones, etc." (Riquelme et al., 2011, p.228). Similarly, when it comes to SMS advertising, incentives refer to the financial rewards that consumers obtain after granting permission to receive advertisements (Tsang et al., 2004). For example, brands may offer exclusive (none) monetary promotions to their customers from a third party brand to encourage customers to opt-in to their advertising campaigns.

Sales promotions are commonly divided into two groups, namely; monetary and non-monetary promotions (Crespo-Almendros & Barrio-Garcia, 2016; Buil et al., 2013a). Yi and Yoo (2011) explained that monetary promotions are price oriented promotions such as price reductions, coupons, and rebates. Non-monetary promotions, on the other hand, are not price oriented such as free gifts, buy one get one free offers, sweepstakes, contests and bonus packs (Yi and Yoo, 2011; Palazon & Delgado-Ballester, 2009). Previous studies have shown that including price promotions as part of marketing mix can generate brand associations (Aaker, 1991) and result in brand evaluations and selections (Yi and Yoo, 2011; Alvarez and Casielles, 2005). However, their effect is not always the same. For example, Buil et al.(2013a) demonstrated that sales

promotions can generate negative or positive brand image depending on the type of promotions and the recipients' characteristics.

Monetary sales promotions can negatively affect the perceived quality of the brand and subsequently damage its image (Buil et al., 2013a; Darke & Chung, 2005; Davis et al., 1992; Yoo et al., 2000). The lines of reasoning on the negative influence of price discounts on brand image are founded on the following:

1- Consumers would tend to associate their purchase decisions to the discounted offer rather than the qualities of the brand, which in turn, leads to inferior evaluations of the brand (Davis et al., 1992)

2- Monetary sales promotions focus the consumers' attention on the price of the service, which consequently affects the internal reference prices (Grewal & Compeau, 1992) and leads to negative brand image in the long term. Similarly, Mela et al. (1998) and Ortmeyer & Huber (1991) explained that since price promotions tend to raise consumers' sensitivity about the price, they are more likely to cause negative attitude toward the brand in comparison to gifts. In spite of concerns over the disadvantages of monetary promotions, there are studies such as Joseph & Sivakumaran (2008) with contradictory findings which claim that such promotions can help in building brand equity due to their contributions to the overall brand knowledge structure. Furthermore, Crespo-Almendros & Barrio-Garcia (2016) explained that in the context of online advertising, monetary promotions can have a positive effect on brand image because they are very common on the internet, and they reduce consumers' perceived risks regarding online shopping.

Unlike the monetary incentives, non-monetary promotions such as gifts and sweepstakes are considered helpful in generating positive brand associations and brand image by authors such as Buil et al. (2013a), Chandon et al. (2000). Diamond & Campbell (1989) showed that positive

brand image gets developed when free gifts are added to the offered products and services. Since they add to the benefits of obtaining the products, they can potentially increase consumers' satisfaction. Furthermore, non-monetary sales promotions are deemed to be appropriate for creating unique brand associations and generating positive brand images (Buil et al., 2013a; Chandon et al., 2000).

While previous studies claim that price promotions can negatively affect the brand perceived quality and value, it is argued that in the context of this research that such a relationship is questionable for the following reasons:

- The online brands in the context of this study, provide incentives free of charge and they are generally coupons and discounts from a third party brands (i.e. Sales promotions to receive £20 off from a restaurant). Therefore, such monetary promotions should be viewed as gifts as they are generally free and they do not offer discounts on the brand itself (so, they cannot be associated with consumers' internal price reference).
- While sales promotions can affect the promoters' perceived quality and price reference, they do not damage the brands since they only work as a medium to convey the promotions.
- The brands investigated in this study focus on providing consumers with incentive, so sending coupons and vouchers to recipients' mobile phone is not viewed as damaging the quality of the service.
- Factors such as previous promotions, shoppers' expertise in the category and the impressions on how incentives are presented in a given industry affect the degree to which consumers form negative attitude toward the brand (Raghubir & Corfman, 1999). Since SMS monetary promotions are quite common in this context, no negative effect is hypothesised for the online brands under study.

The recipients of direct marketing programs are interested in obtaining some forms of monetary value from the brands (Milne and Gordon, 1993). In order to demonstrate how incentives are linked to attitude toward using SMS advertising and dimensions of online brand equity, it should be noted that consumers' perceptions about these promotional deals play a pivotal role. Therefore, in line with Darke & Chung (2005), this thesis conceptualises incentives assessment in terms of consumers' overall assessments of the promotional offers. Buil et al. (2010) explained that, in general, research has found that consumers' assessments of sales promotions affects their intentions to accept such offers. In a similar vein, Almendros and Barrio-García (2016) explained that the extent to which consumers find the sales promotions relevant, affects their attitude toward such promotions.

3-4-1-4 Incentives assessment effect on attitude toward using SMS advertising

Similar to all services, acceptance of mobile services (i.e. SMS advertising) depends on the perceptions that some forms of value would be obtained from the service (Pihlstrom and Bush, 2008). A Nokia sponsored study by the HPI research group revealed that almost ninety percent of the respondents believed that some kind of trade-off should exist when it comes to accepting mobile advertisements (Pastore, 2002). In relation to text message advertising, Muk & Chung (2015) held that the advantages that consumers gain as a result of joining campaigns i.e. discount coupons and promotions can be considered as perceived usefulness. They further demonstrated that perceived usefulness has a direct effect on attitude toward SMS advertising. Furthermore, Barwise & Strong (2002) and Tsang et al. (2004) confirmed that including a reward system for consumers can increase the acceptance of SMS advertising. Subsequently, Drossos et al. (2007) proved that there is a positive relationship between incentives and attitudes toward SMS advertising. Similarly, it is suggested that if consumers evaluate the sales promotions as positive (perceive benefits in sales promotions), they tend to also form a positive attitude toward using SMS advertising from the brand.

H3) There is a positive relationship between incentives assessments and attitude toward using SMS advertising.

3-4-2 Mobile advertising

While it was shown in the previous section that message contents and characteristics are influential on attitude toward using SMS advertising, other factors related to the nature of SMS advertising also need to be considered. For instance, Aslam et al. (2016) Dickinger et al. (2004) and Ul Haq (2012) identified consumers' control and permission as antecedents of consumers' attitude toward SMS advertising. In this section, these characteristics are reviewed and their possible associations with the attitude toward using SMS advertising are explained.

3-4-2-1 Permission

Barwise & Strong (2002) maintained that unauthorised SMS messages are at best, ineffective and at worst, destructive for brand equity because mobile phone are considered as a very personal space by consumers. Barnes & Scornavacca (2004) identified 'permission', 'wireless service provider control (WSP)' and 'brand recognition' as the three main variables that influence consumers' acceptance of mobile marketing and highlighted the role of permission.

Permission is characterised as giving explicit consent to opt in SMS advertising schemes (Aslam et al., 2016; Chang, 2013). Permission is considered as a significant factor which influences consumers' attitude toward SMS advertising (Aslam et al., 2016; Tsang et al., 2004) and intention to use such services (Tsang et al., 2004). In other words, SMS advertisements with consumers' explicit permission, are perceived more attractive and are more likely to be accepted, provided they allow consumers to opt out easily (Carroll et al., 2007).

Consequently, permission (the ability to opt in/out of receiving messages) was considered as one of the main factors in mobile marketing adoption (Gratton, 2002). Studying the Finish population, Merisavo et al. (2007) explained that permission is required for two reasons: First,

from the legal point of view, advertisers are required to secure consumers' permission before SMS advertising. Secondly, unsolicited SMS advertisements can impact negatively on consumers' attitudes and intentions toward SMS advertising. Likewise in another study, Swedish consumers showed negative attitudes toward SMS advertising when their permission was not first obtained (Pietz et al., 2009).

Similarly, based on the regulation in the UK, companies are obliged to obtain consumers' consent before conducting any form of mobile marketing practices (EC directive, 2003). Furthermore, since unanticipated advertising messages, also known as spam messages, are regarded as a form of privacy violation (Gratton, 2002); for brands, it is necessary to obtain consumers' permission before attempting any mobile activities to protect consumers' privacy (Beatrix Cleff, 2007). As the two online brands under study are also following these regulations and they always ask for consumers' consent before conducting SMS advertising, it is not possible to factor in the "prior permission" into the model. Therefore, in order to address this issue, consumers' perceived importance of permission is investigated instead of consumers' permission (Merisavo et al., 2007).

Aslam et al. (2016) and Tsang et al. (2004) showed that obtaining consumers' prior permission to receive SMS advertisements is positively linked to their attitude toward advertising text messages. With the same token, it is suggested that consumers who are less concerned about (perceive less importance in) giving permission (to participate in SMS advertising campaigns) are more likely to have a positive attitude toward using SMS advertising from the brands.

This relationship is justifiable because it is possible to assume that consumers who associate pain and annoyance to SMS advertising are more likely to appreciate the importance of asking for their prior permission before targeting them with such advertising messages. Furthermore, these consumers are more akin to those who are not interested in taking part in SMS advertising

campaigns; in comparison to other customers who are more relaxed about receiving SMS advertising. Subsequently, this thesis suggests that the consumers who are more concerned about the need to ask for their prior permission (associate more pain to SMS advertising) are less likely to have a favourable view toward using SMS advertising from the brand. For instance, if customers believe that SMS advertising violates their privacy, they tend to stress the need for asking their permission before participating in those campaigns. This higher emphasis on the permission shows the negative associations with SMS advertising. Hence, compared to other respondents, such customers are less likely to appreciate using SMS advertising. Therefore, it is posited that:

H4) There is a negative relationship between perceived importance of permission and attitude toward using SMS advertising.

3-4-2-2 Consumer Control

Barwise & Strong (2002) explained that consumer control refers to the assessment of whether the process of SMS advertising can be controlled by consumers. It is characterised by the degree to which consumers' believe they can (have the ability to) control SMS advertisements (Barwise & Strong, 2002), i.e. to control the number of messages that they receive. In line with permission, consumers should have control over the frequency, time, and contents of advertisements (Khasawneh & Shuhaiber, 2013).

In highlighting the effect of perceived control, Kautonen et al. (2007) explained that the feeling of lack of control could hinder consumers from joining in mobile marketing programs. For example, Dickinger and Kleijnen (2008) showed that there is a positive relationship between perceived control and acceptance of receiving m-coupons. Accordingly, Watson et al. (2013) suggested that strategies that allow consumers to feel in control of marketing exchanges can alleviate their negativity toward marketing communications. With a similar logic, it is

suggested that when consumers believe they have control over the SMS advertising campaigns (i.e. they can or reduce the number of advertisements), they show more positive attitude toward using them. In contrast, if they believe the text message advertisements are spam or impossible to reduce, then they are more likely to show a negative attitude toward using SMS advertising from a brand. Accordingly, this study posits that there is a positive relationship between perceived control and attitude toward using SMS advertising.

H5) There is a positive relationship between consumer control over SMS advertisements and attitude toward using SMS advertising.

3-5 How advertising influences brand equity

Previous studies have demonstrated a relationships between advertising and brands' perceptions and judgments (Buil et al., 2013a; Keller, 2007; Raithel et al., 2016; Schivinski and Dabrowski, 2015; Cob-Walgren, 1995). Furthermore, the hierarchy of effects model is one of the widely accepted frameworks used to elaborate the impact of advertising on the perceptual and behavioural stages that consumers go through in decision making (Hu, Du, & Damangir, 2014; Lavidge & Steiner, 1961). Hence, numerous studies have adopted this model to show the associations between various forms of advertising and promotions in connection to consumer based brand equity dimensions (i.e. Buil et al., 2013; Schivinski & Dabrowski, 2015; Yoo, Kim, Stout, 2004). For instance, Schivinski & Dabrowski (2015) showed that social media brand communication could impact CBBE dimensions such as brand awareness/associations, brand associations, and brand loyalty.

Lavidge and Steiner (1961) contended that the effect of advertising should not be measured solely based on the sales, because there are long-term effects that do not simply transform to sales. Therefore, they suggested that depending on the knowledge and experience of the audience, advertising is presumed to have three functions; First, to increase awareness and

knowledge, secondly, to induce consumers' favourable attitude or preference toward a product, and thirdly, to produce action in acquisition of products. They then identified six stages that correspond to these three functions:

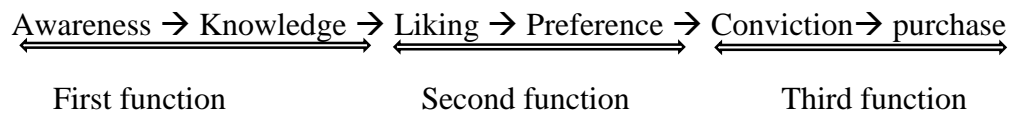


Figure 3-1 Lavidge and Steiner (1961)

Although this model was initially developed to show the hierarchy of effect in advertising effect and buying products, other studies have proven that this framework is useful in demonstrating the causal order between CBBE dimensions (Buil et al., 2013b; Cobb-Walgren, 1995; Keller & Lehman, 2003; 2006; Perez et al., 2015; Yoo & Donthu, 2001). Herrero, San Martín, Garcia de los Salmones, & Collado, (2016), for example, identified four dimensions of awareness, destination image, perceived quality, and loyalty toward the destination as four CBBE dimensions for destinations. Then, they proved that awareness affects both image and perceived quality of destinations, while image only influences perceived quality. Finally, they showed that perceived quality affects brand loyalty (Herrero et al., 2016).

The present study adopts these perspective and develops hypotheses to demonstrate the interlinks between brand equity dimensions in line with Buil et al. (2013b), Pike et al. (2010), and Pike. (2007). Buil et al. (2013b) asserted that the evolution of brand equity is a consumer's learning process where brand awareness leads to brand associations which eventually result in attitudinal loyalty. This proposition is in line with Pike et al. (2007) as demonstrated in figure 3-2.

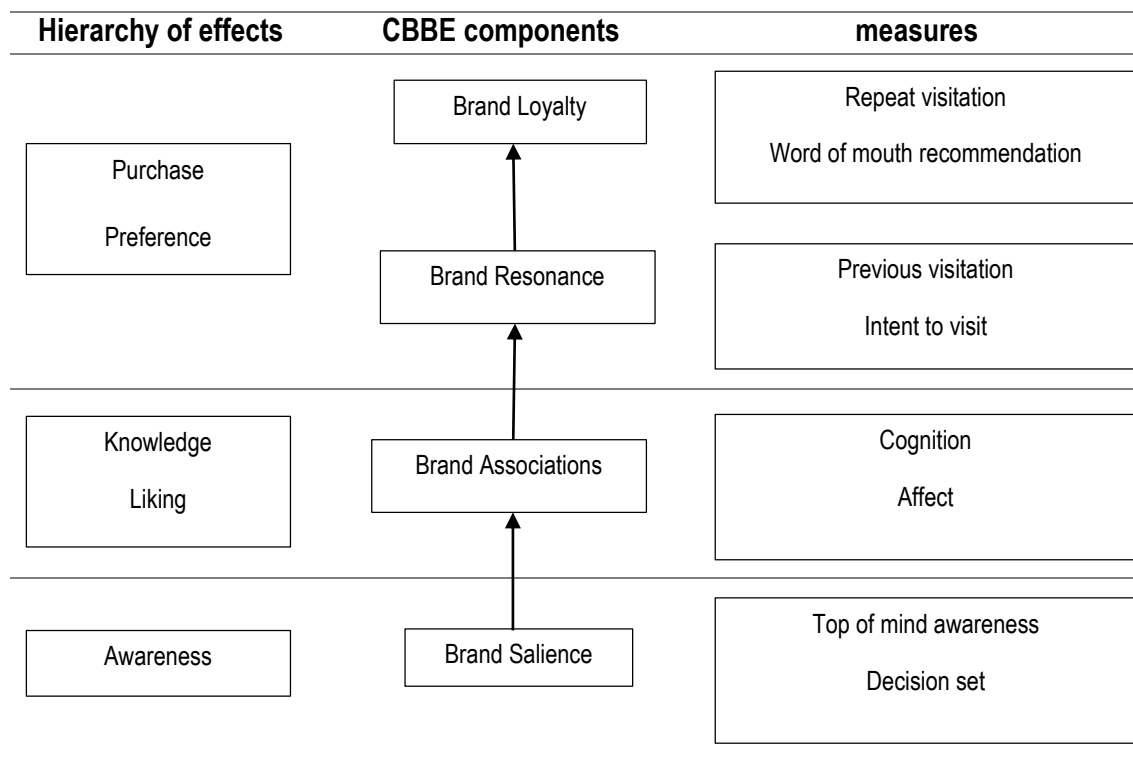


Figure 3-2 Hierarchical effect model adopted from Pike. (2007)

Accordingly, this chapter follows by demonstrating the inter-relationships between the identified dimensions of online CBBE. Once these hypotheses are developed, then the possible associations between SMS advertising and CBBE dimensions are explained – based on hierarchy of effects model.

3-5-1 Hierarchical effect of dimensions of online brand equity

Brand awareness is considered as the foundation of brands hierarchy of effect (Buil et al., 2013b; Keller, 2003; Pike, 2007; Pike et al., 2010). Keller (2003) and Aaker (1991) explained that brand awareness refers to the extent of the presence of a brand in consumers' mind and how easily is the customers can recognise and recall the brand. Furthermore, it connects brands' name, logo, and symbols with the associations in consumers' memory (Keller, 2003). Awareness is also viewed as a necessary basis for generating meaning for a brand in the minds

of consumers (Herrero et al., 2015). Therefore, brand associations can only be retrieved and linked to a brand if consumers have a sort of awareness about the brand (Aaker, 1991).

Buil et al. (2013b) proved that brand awareness positively influences brand associations. Furthermore, Keller & Lehman (2003) suggested that brand awareness supports brand associations and Esch et al. (2006) held the view that until consumers have acquired some knowledge and awareness about the brand, they cannot form associations (such as trust and value) in their memory about the brand. Additionally, Ming et al. (2011) explained that if consumers are aware about the brand, there is a higher possibility for them to form favourable associations to it. For example, in the work of Hoyer et al. (1990), consumers' awareness is maintained as the basis for their decisions making. This effect can be attributed to the influence of brand awareness in forming and strengthening brand associations in consumers' mind (Keller, 1993, 2001).

Chau et al. (2006) who examined the consumers trust on websites, showed that familiarity (including awareness and previous experiences with the brand) can improve trust; as it reduces complexity of using the website and the consumers' concerns that the other parties may jeopardize their reputation by cheating. Aaker (1991) clarified that higher awareness can affect brand associations because when consumers have higher recognition of the brand, they could make assumptions regarding the longevity or success of the based on its popular use. These assumptions are then suggested to be connected with brand associations, for example, when consumers have higher recall and recognition of the brand, they have higher trust or consider such brands as more valuable. Consequently, a positive link between brand awareness and brand trust is posited (Ming et al., 2011; Buil et al. 2013b; Rios & Riquelme, 2010; Herrero et al., 2015).

H6) There is a positive relationship between brand awareness and brand trust.

Brand awareness can increase brand familiarity (Langaro et al., 2015) and increase the likelihood of consumers to pay premium prices for familiar brands (perceive higher value) (Baldauf et al., 2003). Baldauf et al. (2003) further explained that identifying a brand name or logo can lead to positive assessments of the product as a good value. This proposition is in line with studies such as Buil et al. (2013a), Kim et al. (2008) and Wang (2015).

Brand awareness can help customers to identify the service providers and anticipate their purchase results (Janiszewski & Osselaer, 2000; Kim et al., 2008). It works as a node, which anchors the associations related to the brand so that when awareness is activated, it stimulates those associations in consumers' minds (Langaro et al., 2015). Accordingly, Buil et al. (2013a) demonstrated that brand awareness could influence the strengths of brand associations and perceived quality. Similarly, Wang (2015) suggested that high brand awareness could create higher perceived value in comparison to low brand awareness. They examined this relationship in a food industry and showed that service brand awareness has a positive and significant effect on service value. With the same token, it is possible to hypothesise that higher brand awareness (recognition and recall of the brand) is positively linked with the perceived value of the brand.

H7) There is a positive relationship between brand awareness and brand value.

Regarding the interrelationships between hierarchy of effects in online brand equity dimensions, it is suggested that two associations, namely; brand value and brand trust, are correlated with attitudinal brand loyalty. Justifications for this proposition can be found from Yoo & Donthu (2001) and Keller & Lehman (2003) where they identified brand associations as an antecedent of attitudinal loyalty and proved that when positive perceptions about a brand is formed, brand loyalty is encouraged (Oliver, 1999). To elaborate, Rio et al. (2001) contended that the benefits of positive brand image can be categorized into three components:

- Advantages related to the current performance and profitability of the firm (i.e. positive brand image commanding higher prices/volume.);
- longevity of profits advantages (i.e. positive brand image leading to higher brand loyalty and more resilience to competitors' communications);
- growth potential advantages (i.e. positive brand image allows for licencing opportunities and extending the brand to new markets.)

Furthermore, previous studies have shown that favourable brand associations positively affect consumers' choice, preferences, willingness to pay a price premium, brand loyalty and willingness to recommend the brand to others (Park & Srinivansan, 1994; Rio et al., 2001; Schivinski & Dabrowski, 2015; Yoo et al., 2000; Wang, 2015). Therefore, it is possible to presume a connection between the associations and consumers' loyalty. The next sub-section presents the underlying reasoning for the proposed relationships between brand associations (value, trust) and attitudinal loyalty.

3-5-2 Brand trust and brand loyalty

Trust plays a significant role in service dynamics and it can directly or indirectly drive brand loyalty (Harris & Goode, 2004). Previous studies have referred to brand trust as building blocks (Wilson, 1995) and a central attribute (Sirdeshmukh et al., 2002) in enhancing brand loyalty (El-Manstrly, 2016). To clarify this effect, the majority of studies such as Chaudhuri & Holbrook (2001), Thompson et al. (2014), Harris & Goode (2004), Ball et al. (2004), Veloutsou (2015) and Sirdeshmukh et al. (2002) looked at the customer-brand relationship. When providers and brands take actions that improve consumers' trust, the perceived risks of using the provider (brand) reduces and makes the future behaviours and outcomes predictable (Mayer et al., 1995). Hence, based on reciprocity literature, consumers are more likely to response cooperatively to a trustworthy party and demonstrate loyalty (Gassenheimer et al., 1998;

Sirdeshmukh et al., 2002). This proposition is in line with Lau and Lee (1999) who found a significant relationship between trust in brands and brand loyalty. Furthermore, Shukla, Banerjee, & Singh (2016) showed that trust could influence consumers' (affective) commitment and maintained that commitment corresponds to brand attachment, brand loyalty, and customer loyalty. Examining the extent of brand trust effects, Chaudhuri & Holbrook (2001) explained that it is an important factor in relational exchanges and affects both purchases and attitudinal loyalty. Therefore, similar to such studies, it is suggested that brand trust and attitudinal loyalty are positively correlated.

H8) There is a positive relationship between trust and brand loyalty.

3-5-3 Brand value and brand loyalty

Previous research show that perceived value has a positive effect on repurchase intentions (Chai et al., 2015; Chiu et al., 2014). When perceived value from a brand is low consumers are more inclined to switch to competitor brands which in turn contributes to lower brand loyalty (Anderson and Sullivan, 1993). Subsequently, perceived value is regarded as a high motivation to re-patronage a brand (Yang and Peterson, 2004). This relationship is justified using goal and action identity theories. Sirdeshmukh et al. (2002) identified perceived brand value and brand loyalty as superordinate and subordinate goals respectively. They continued that since superordinate goals are likely to regulate the subordinate goals, it is possible to conclude that perceived brand value regulates the "behavioural intentions of loyalty toward the service provider" (Sirdeshmukh et al, 2002, p.21). In a similar vein, Pura (2005) found a positive and direct relationship between the dimensions of perceived value (i.e. monetary, convenience and social) and the attitudinal and behavioural components of loyalty. Hansen et al. (2008) also proved that perceived value improves the tendency of word of mouth recommendation and reduces the likelihood of consumers searching for information about the service provider in

B2B contexts. Previous studies have also confirmed this significant relationship between brand value and brand loyalty in various contexts i.e. service environment (Chai et al., 2015; Shukla, 2010), location based mobile services (Pura, 2005) and B2B context (Hansen et al., 2008). Subsequently, in this thesis it is hypothesized that:

H9) There is a positive relationship between brand value and brand loyalty.

3-5-4 Brand value and brand trust

There are conceptual supports and empirical validations for associations between brand trust and perceived value (Singh & Sirdeshmukh, 2000, Harris & Goode, 2004, Karjaluoto, Jayawadhena and Leppani, 2012; Moliner et al., 2007). Morgan & Hunt (1994) explained that the perceived benefits of a relationship form the basis for trust. Furthermore, brand value can be considered as benefits received in the relationship with the brand and by extension, as a precursor of trust. Similarly, Karjaluoto et al. (2012) argued that when consumers receive a competent service from a provider, they perceive that they receive a service of high value which leads them to trust the service provider. Harris & Goode (2004) also showed that there is a high correlation between trust and perceived value. This proposition is in line with Rios & Riquelme (2008) who also investigated the connections between online brand equity dimensions. Therefore, it is hypothesised that:

H10) *There is a positive relationship between brand value and brand trust.*

After describing the possible interrelationships between online brand equity dimensions according to theory of hierarchy of effect, relevant hypotheses were developed as illustrated in figure 3-3. These correlations are in line with studies such as Buil et al. (2013b), Pike (2007) and Pike et al. (2010). In the next section, the links among attitude toward using SMS advertising brand awareness and brand trust are examined. Furthermore, the links between

incentives assessments and online brand equity dimensions, namely, brand value and brand loyalty are explained.

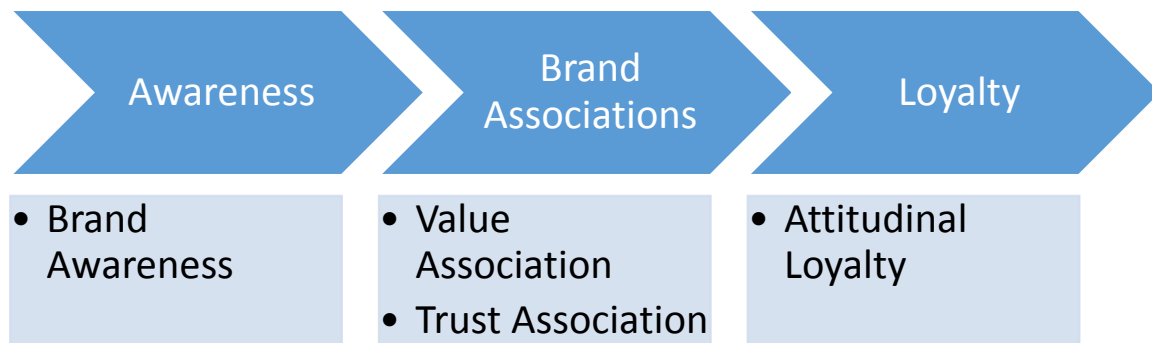


Figure 3-3 Online brand equity hierarchy of effects in this thesis.

3-6 SMS advertising and dimensions of online brand equity

In delineating the effect of advertising on brand perceptions, de Chernatony (2010) asserts that advertising is a persuasive way of communicating a brand's functional and emotional values. Furthermore, it is accepted among scholars that advertising can increase brand awareness and create favourable, unique and strong brand associations in consumers' memory, which in turn leads to positive judgements and feelings about the brand (Keller, 2007). It is contended that advertisements that capture consumers' attention lead to higher brand awareness and precipitate strong, unique and favourable associations about the brand in consumers' mind (Aaker, 1991; Lavidge and Steiner, 1961; Kirmani and Zeithaml, 1993). Therefore, it is concluded that in addition to increasing awareness, advertising may aid in the formation of consumers' perceptions about brand associations and quality (Moorthy and Hawkins, 2005).

Scholars have applied hierarchy of effect theory to demonstrate the impact of advertising on dimensions of consumer based brand equity (Bravo Gil et al., 2007; Buil et al., 2013a; 2013b; Hutter et al., 2013; Schivinski & Dabrowski, 2015; Yoo et al., 2000). To elaborate this relationship, Shimp (2010) explained that various marketing communication elements could

advance consumers through the perceptual stages of hierarchy of effects. Based on a similar reasoning, Yoo et al. (2000) showed that investments in advertising could positively influence brand awareness and lead to the development of positive brand associations and perceived quality; whereas price promotions could negatively affect brand associations and quality. Similarly, previous studies have demonstrated that (1) the information received by consumers through marketing actions or in their interactions with family members (Bravo Gil et al., 2007); (2) advertising spend, (3) attitude toward advertisements, (4) monetary promotions and non-monetary promotions (Buil et al., 2013a); (5) firm-created social media communications or user-generated social media communication, (Schivinski & Dabrowski, 2015) and customer experience (Biedenbach & Marell, 2010) could also influence the dimensions of brand equity. In a similar way, it is suggested that when consumers show positive attitude toward using SMS advertising from a brand, brand awareness increases and brand associations form in consumers' memory from encounters with the brand messages.

Hence, it is possible to assume that text message advertisements can create associations and perceptions about the brands in consumers' mind. These perceptions and judgements are attributed to the utilitarian and hedonic benefits that consumers receive by participating in SMS advertising campaigns. Keller (2003) for example, asserted that hedonic and utilitarian benefits provide opportunities for brands to positively affect consumers' judgements about the brands and subsequently differentiate such brands from their competitors. Therefore, it is possible to posit that consumers' exposure to SMS advertisements enables them to form some beliefs (about the text messages) in their minds. These beliefs lead to the development of consumers' attitude toward using the service - i.e. when consumers find benefits (perceived incentives and informativeness), they have a more favourable view toward using the service. This favourable view (as a result of benefits) is suggested to correlate with brand judgements and perceptions such as brand trustworthiness and value (Keller, 2003).

This thesis analyses the influence of two factors, namely; attitude toward using SMS advertising and perceived incentives, on online consumer based brand equity. These two factors are selected because:

- i) Attitude toward using SMS advertising is perceived as overall evaluations about using the text message advertising. Therefore, including this concept is necessary as it is indicative of both the benefits and disadvantages of using the service.
- ii) Since SMS advertising includes sending incentives and coupons, it is suggested that the consumers' perceptions and evaluations about such coupons can also affect brand judgements. For example, when consumers' perceive utilitarian benefits in using the brands' coupons offered by text messages, they form judgments about the value of such brands.

Thus, considering the potentials of loyalty programs (such as SMS advertising in this case) on affecting brand perceptions (Bolton et al., 2000; Lemon et al., 2001; Maity et al., 2016; Ou et al., 2011; Voorhees et al., 2015; Yi & Jeon, 2003), it is deemed essential to study the consequences of SMS advertising campaigns on brand equity. Subsequently, after reviewing the literature on interrelationships between SMS advertising and brands, it was found that very few studies have examined the impact of attitude toward participating in SMS advertising campaigns and the incentives included in text messages on brands. This is important for brands because the consumers' attitude is an effective measure for evaluating the impact of campaigns (e.g. formed as a result of previous advertising campaigns or their experiences with the brand) (Fishbein & Ajzen, 1975). Hence, such evaluation demonstrates whether consumers have a favourable or unfavourable view toward using the campaigns. Consequently, it is suggested that this (un)favourable view hinders or helps brands to establish a constructive bond with customers and subsequently increase their brand awareness and win customers trust. Moreover, as most loyalty programs use text messages to send incentives to their consumers, it is

necessary to investigate the effect of such incentives on the brand. Accordingly, this research examines the role of attitude toward using SMS advertising campaigns and incentives included in text messages on the dimensions of online brand equity.

3-6-1 Attitude toward using SMS advertising relationship with brand awareness

Although brand awareness is considered an important dimension of brand equity in the traditional context, in the online context, some studies have undermined its significance (Christodoulides et al., 2006; Rios & Riquelme, 2008). Some studies have been unable to establish any significant relationship between brand awareness and online brand equity (Rios & Riquelme, 2010; Washburn and Plank, 2002). However, in this study it is argued that brand awareness is an essential part of brand equity and the existence of brand equity depends on creating awareness in consumers' minds. In other words, it would not matter how well services or products are designed if there is no knowledge about such products/services in consumers' minds. Thus, when examining the influence of SMS advertising on brand equity, if consumers have no idea about the brand, they cannot evaluate its dimensions properly. Even if they make any assumptions about the brand, it will be purely based on a guess or some associations they are able to instantly form in their minds using external cues such as brands name or the context of questions. Therefore, brand awareness is considered the precursor for brand equity and without brand awareness, there will be no brand equity.

One of the advantages of text message advertising is that it increases brand awareness by improving recalls of brands as demonstrated by Barwise & Strong (2002). Pousttchi & Wiedemann (2006) and Smutkupt et al. (2012) also confirmed that text message advertising could increase the presence of brands in consumers' minds and subsequently, increase awareness.

It is suggested that as a result of positive attitude toward using SMS advertising from a brand, consumers' become more exposed to the brand and its offering. Thus, as a result of such encounters with the brand, they are more likely to recall and recognise the brand. Therefore, it is suggested that:

H11) There is a positive relationship between attitude toward using SMS advertising and brand awareness.

3-6-2 Attitude toward using SMS advertising relationship with brand trust

The positive relationship between advertising and trust has been previously studied by scholars such as Azize et al. (2012), Chinomona (2016), Gavilan et al. (2014), Nguyen & Nguyen (2011), Sheinin et al. (2011), Li & Miniard (2006), Romani (2006) and Alonso Garcia (2013). While some studies presumed a direct relationship (Chinomona, 2016; Morgan & Hunt, 1994), others showed a mediated interaction by other variables i.e. mental image (Gavilan et al., 2014), thinking favourableness (Li & Miniard, 2006), Awareness (Xingyuan et al., 2010), Product/Brand knowledge (Xingyuan et al., 2010) and attitude toward the advertisements (Sheinin et al., 2011; Nguyen & Nguyen, 2011). To understand the relationship between advertising and brand trust, a brief review of the underlying theories is presented and justification for the proposed relationship between attitude toward using SMS advertising and brand trust in the context of this research are outlined.

Reviewing literature demonstrates that brand communications influence consumers trust (Ball et al., 2004; Chinomona, 2016; Morgan & Hunt, 1994). In this context, brand communication is defined as “written communications such as personalized letters, direct mail, website interactions, other machine-mediated interactions, and e-mail, as well as in-person communication with service personnel before, during, and after service transactions” (Ball et al., 2004, p.1277). It should be noted that while one of the purposes of marketing

communications is to expose the consumers to the brand (Su and Rao, 2010), such exposures together with good communications could impact other aspects of the relationship (mostly trust, satisfaction and loyalty) between brands and their audiences (Ball et al., 2004). Accordingly, some authors have hypothesised and tested the relationship between communication and brand trust.

From the proposed definition of communication, it is possible to presume that advertising is a form of one-way communication between brand and its consumers (Ball et al., 2004; Azize et al., 2012). de Chernatony (2010) further delineates that advertising is a powerful form of communication to convey brands' functional and emotional values to consumers. Therefore, as communication is suggested to have an influence on brand trust, similarly, it is possible to deduce that a relationship between advertising and trust. However, some studies have shown that the relationship between advertising and brand trust is mediated via the favourableness and attitude toward advertising. Sheinin et al. (2011) for example, pointed out that while perceived usefulness and creativity in advertising can create beliefs about brands in consumers' mind, such beliefs are only conveyed to brands if recipients show a positive attitude toward the advertisements. Therefore, after empirically examining the relationship between advertisement usefulness and brand trust, they concluded that the effect of advertising on brand trust is mediated via consumers' attitude toward advertising.

Other studies have shown that attitude toward a specific context of advertising can also affect the consumers' beliefs about the brand. Bruner and Kumar (2000) for example, looked at a website as a communication tool and explained that consumers' attitude toward the context (website) has a direct impact on their attitude toward the advertisements, the brand itself, and purchase intentions. Similarly, Demangeot and Broderick (2010) investigated the effect of web-based marketing communications on consumers' attitude toward brands. Investigating the effect of using pop-up advertisements on the brand's attitude and drawing on prior studies by

MacKenzie & Lutz (1989) they contended that the intrusive nature of this advertising format could lead consumers' to form negative attitudes toward such advertisements, which subsequently, affects brand perceptions adversely. Therefore, it is theoretically possible to assume that a brand's communications content and medium (media) both affect the consumers' perceptions about the brand (i.e. advertisements sent through SMS messages affect the consumers' perception and brand associations). This is in line with the initial proposition of this study linking the content and medium of text message advertising to the consumers' attitude toward using SMS advertising messages. For example, when consumers receive text messages from a brand, two factors affect their acceptance of the advertisement which subsequently affect brand perception, first, their evaluations of SMS advertising (vehicle) as a communication tool and secondly, their perceptions about the content of SMS advertisements (Mackenzie & Lutz 1989, Buil et al. 2013a). Hence, when consumers find the vehicle and the advertisements acceptable they show more positive attitude toward using the channel, which subsequently improves brand perceptions and associations (based on logics from Buil et al., 2013a). However, if they have a negative view on either vehicle or the advertisements, they are more likely to show negative attitude toward using the SMS advertising, which hinders brands from forming a bond and communication channel with their audience. By identifying the factors that determine the acceptance of using SMS advertising campaigns, brands can improve the chances of connecting with their customers and improve brand perceptions.

When consumers experience SMS advertisements from a brand or from information obtained from other media, they form attitude toward using such services based on their cognitive beliefs (Asiegbu et al., 2012). For example, from exposures to SMS advertisements, consumers' may conclude that they have control over the amount of messages they receive, the advertisements are irritating, or that the incentives included in the messages are valuable. Such perceptions are then linked to the consumers' attitude toward using the brand's SMS advertising (based on the

expectancy-value theory (Fishbein & Ajzen (1975)). Subsequently, using the logics from MacKenzie & Lutz (1989) and Demangeot and Broderick (2010) with which they proved that attitude toward the advertisement content and media affect brand perceptions, it is hypothesised that there is a relationship between attitude toward using SMS advertising campaigns and brand beliefs (i.e. trust). Positive attitude toward using SMS advertising could demonstrate the assessment of perceived rational benefits gained from opting in such services (based on Petty & Cacioppo (1986)). Previous studies have shown that rational benefits can enhance brand beliefs (Aaker, 1991; Sheinin et al., 2011). For instance, rational benefits are suggested to have an effect on brand trust and brand preferences (Gupta et al., 2016; Lindgreen & Wynsta, 2005). Therefore, it is logical to presume that there is a relationship between consumers' attitude toward using SMS advertising and their beliefs about the brands. Accordingly, a positive relationship between attitude toward using SMS advertising and brand trust could be proposed.

Attitude toward using SMS advertising works as a gateway for consumers to become exposed to online brands and use the benefits included in SMS advertisements and offering. For example, consumers are more likely to: come across brands and their offering, process the advertisement information, find out about sponsors, check the links in the text messages, familiarise themselves with the products and the institution and form perceptions about the brand. Therefore, positive attitudes toward SMS advertising allows favourable, unique and positive brand associations to be formed in consumers' mind, and these associations have a positive relationship with brand judgments and brand associations such as trust. In other words, if consumers show positive attitude toward using SMS advertisements from a brand, then it is logical to assume that they are more likely to be more aware of the brand and to have more positive perceptions (i.e. trust) about the brand (i.e. as a result of previous experiences, advertisements' content or perceived benefits of using the service. Thus, it is hypothesised that:

H12) There is a positive relationship between attitude toward using SMS advertising and brand trust.

3-7 Incentives assessments and online brand equity dimensions

The present thesis investigates the implications of consumers' assessment of the incentives that they receive by text messages on the brands, along with ATUSA. The significance of this construct lies in the fact that the purpose of the online brands studied (as loyalty programs) is to provide consumers with valuable deals and useful information. Hence, using text messages as a communication tool to send those incentives could have some consequences for the brand. For instance, when consumers assess the promotions that they receive via SMS messages positively, they may form some perceptions about the brand that sends those messages i.e. the brand provides them with benefits free of charge. These perceptions are then suggested to be linked with the brand equity dimensions such as brand value and brand loyalty.

This is in line with previous studies, wherein the effects of incentives on consumers' brand choice, purchase intentions, and brand equity have been demonstrated. Minnema, Bijmolt, & Non (2016) for example, showed that instant reward programs and bonus premiums, offered by brands, could influence the consumers' purchase behaviour and brand choice. Moreover, Buil et al. (2013a) showed that sales promotions have impacts on brand associations and perceived quality. Additionally, Stathopoulos & Balabanis (2016) proved that the benefits that consumers' receive from loyalty programs influence their satisfaction and trust on the loyalty program which in turn, affects the brand loyalty. Accordingly, the next sub-section develops two hypotheses to demonstrate the influence of consumers' assessment of the incentives (included in text messages) on brand equity dimensions.

3-7-1 Incentives assessment and brand value

To demonstrate the effect of incentives on brand value, first the definition of perceived value is presented. It is defined as “a ratio of perceived benefits to perceived sacrifices” (Monroe, 2007, p.104). Based on this definition, it is possible to propose that incentives can improve perceived value by offering higher benefits to consumers. This is in line with Yoon et al. (2014) who proved that sales promotions could influence the perceived value of a brand and subsequently impacts the brand reputation. Furthermore, looking at the sacrifices that consumers need to make, previous literature such as Rettie et al. (2005) and Chen et al. (1998) explained that when incentives are included in the marketing practices, consumers need to make less monetary sacrifices to obtain specific products or services and subsequently, they perceive more value using promotions.

Therefore, it is possible to conclude that incentives can affect perceived value. However, this effect depends on the consumers’ evaluations and attitudes toward the promotions. For consumers who believe that product features or promotions provide value for them, there is a better chance of selecting the enhanced brands (Simpson et al., 1998). Likewise, it is possible to suggest that, if consumers are positive about their evaluations of the incentives that they receive via text messages, they might perceive more value in the brands that provide them with such vouchers and coupons. Hence, it is suggested that:

H13) There is a positive relationship between incentives assessments and brand value.

3-7-2 Incentives assessment and brand loyalty

As explained earlier in the thesis, the online brands in this study are loyalty programs that are active in daily deal site market. Loyalty programs aim to increase the customers’ satisfaction and commitments (Zakaria et al., 2014). To do so, they provide consumer with various benefits (Zakaria et al., 2014), which could be divided into two forms of hard (monetary i.e. rebates)

and soft (non-monetary i.e. gifts) incentives (Mulhern & Duffy, 2004). Consequently, for consumers who participate in loyalty programs, such benefits could result in their loyalty to the brand (Bolton et al., 2000). Studies by Zakaria et al. (2014), Sirohi et al. (1998), Dowling and Uncles (1997), Liebermann (1999), Sirohi et al. (1998) and Smith & Sparks (2009) have all shown that incentives significantly influence brand loyalty.

In a study on “deal of the day” programs such as Groupon, LivingSocial, and DailyDeal, Krasnova et al. (2013) showed that loyalty plays a pivotal role for such brands. They identified perceived benefits (i.e. savings, explorations, value expressions, and convenience) and costs (i.e. perceived risks, overspending and privacy), as two of the main predictors of consumers’ attitudinal loyalty toward such brands. Zhang et al. (2016) showed that group-buying platforms can directly affect customer loyalty through creating service related benefits, social benefits, confidence benefits and special treatment benefits. Thus, it is suggested that the online brands, specified for this study, could affect customers’ loyalty by creating value for consumers through incentives, offers, vouchers, and deals from third party companies. One of the ways that they could send such vouchers and offers is through text messages. Therefore, it is proposed that when consumers hold positive evaluations and perceptions about the benefits of the incentives that they receive via text messages (i.e. if they find them as good value and attractive), they are more likely to form attitudinal loyalty toward the brand. In other words, consumers are more likely to show loyalty to a brand, when they receive attractive and beneficial text messages from that brand.

H14) There is a positive relationship between incentives assessments and brand loyalty.

3-8 Hypotheses and the theoretical model

The present study proposed fourteen hypotheses that are summarized in table 3-2. Moreover, figure 3-5 demonstrates a new model to show the effects of SMS advertising on online brand equity dimensions.

H1	There is a positive relationship between informativeness and attitude toward using SMS advertising.
H2	There is a negative relationship between Irritateness and consumers' attitude toward using SMS advertising.
H3	There is a positive relationship between incentives assessments and attitude toward using SMS advertising.
H4	There is a negative relationship between perceived importance of permission and attitude toward using SMS advertising.
H5	There is a positive relationship between consumer control over SMS advertisements and attitude toward using SMS advertising.
H6	There is a positive relationship between brand awareness and brand trust.
H7	There is a positive relationship between brand awareness and brand value.
H8	There is a positive relationship between brand trust and brand loyalty.
H9	There is a positive relationship between brand value and brand loyalty.
H10	There is a positive relationship between brand value and brand trust.
H11	There is a positive relationship between attitude toward using SMS advertising and brand awareness.
H12	There is a positive relationship between attitude toward using SMS advertising and brand trust.
H13	There is a positive relationship between incentives assessments and brand value.
H14	There is a positive relationship between incentives assessments and brand loyalty.

Table 3-2 Summary of the hypotheses

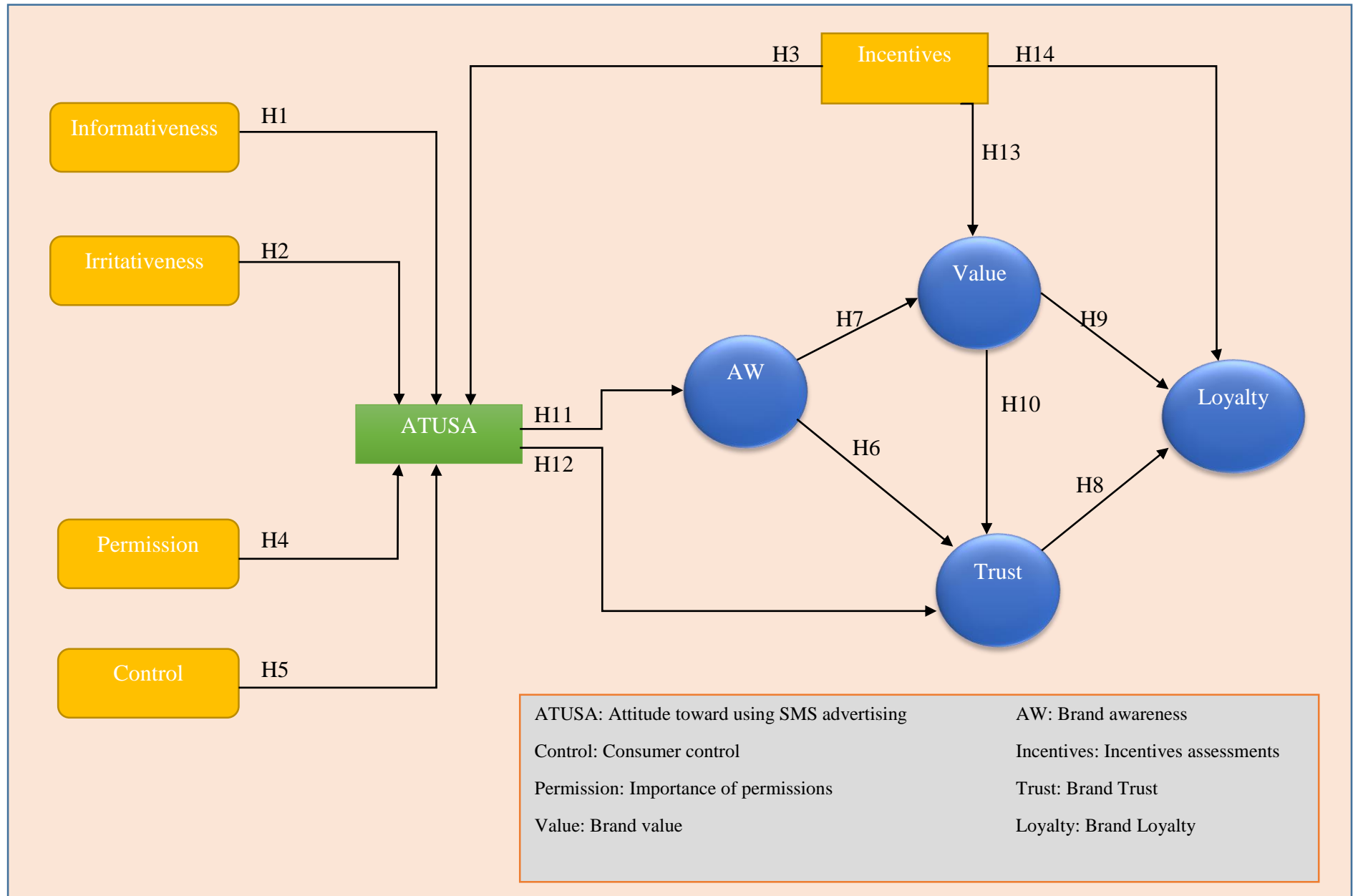


Figure 3-4 Theoretical model

3-9 Conclusion

This chapter started by briefly reviewing the research objectives. Then it explained the theories applied to address them and developed hypotheses from three perspectives.

First, from SMS advertising view. The present study demonstrated that “attitude” is an important construct to measure the level of consumers’ acceptance of a phenomenon (TRA, TPB), technology, or act (TAM); and to convey the effects of advertising (Mackenzie et al., 1986). Consequently, an investigation on the attitude toward using SMS advertising (ATUSA) and the factors that influence ATUSA could be insightful and useful both theoretically and in practice. This thesis showed that two main factors are linked to ATUSA, namely, the characteristics of the content and the characteristics of the medium (SMS channel). Each factor was then broke down to smaller aspects. Then hypotheses were developed to show the relationship between each aspect and ATUSA.

The second part of the chapter focused on the inter-relationships between the dimensions of online brand equity. Based on the identified dimensions of the online brand equity in the Literature review chapter and applying the hierarchy of effects model, this study proposed five hypotheses in this regards.

The third part focused on the possible links between ATUSA and dimensions of online brand equity and incentives assessment. This assumption was based on the hierarchy of effects model, which has been widely used by scholars to show the effects of advertising on brands. However, the present research extended this model to demonstrate the effects of two variables mentioned above (ATUSA and incentives assessments) on brand equity dimensions.

Finally, the chapter presented the hypotheses and developed a new conceptual model. Next, the research paradigm, research approach, and methodologies applied in executing the study are explained.

CHAPTER 4 - METHODOLOGY

4-1 Introduction

After reviewing literature on brand equity, online brand equity, SMS advertising and mobile marketing, gaps in the extant literature were identified and relevant hypotheses were proposed. To address the research objectives and examine the proposed hypotheses, it is necessary to explain the methods and approaches applied in this study. In this section, the research paradigm and philosophy are explained and the research design and methodology are justified. Furthermore, the reasons for applying quantitative approach in this research and selecting a survey method are expressed. Additionally, the adoption and development of questionnaire scales is also clarified.

4-2 Positioning of the Paradigm and Philosophy

This section begins by explaining how research philosophies and paradigms underpin and guide the addressing of research objectives. Next, a definition of the adopted paradigm and explanation of the different worldviews concerning the creation of knowledge are discussed. Subsequently, a justification for the applied paradigm and epistemology is presented and finally, the methodology selected based on this researcher's ontology and epistemology are explained.

Saunders et al. (2011) developed "the research onion," in which they explained the steps required steps in to the process of answering research questions. The outer layer, or the first step, relates to determining the research paradigm i.e. realism, interpretivism, pragmatism, or positivism. The second layer covers the nature of the research, in terms of whether the study is carried out inductively or deductively. The third layer focuses on the criteria for selecting an appropriate methodology to address the first two layers. Here, the researcher needs to justify whether one method, mixed methods, or multi-methods would be most suitable to address the research questions. On the fifth layer, the researcher selects a suitable research design (e.g.

longitudinal or cross-sectional design) to guide the data collection, analysis, results and research conclusions.

In the first layer, Saunders et al. (2011) noted that research paradigms arise when a community of scientists hold a unified assumption about the world and how knowledge emerges from research. These assumptions form the basis of the conceptual and philosophical frameworks that help scientists in a field to carry out organised studies of the world (Deshpande, 1983). In the social sciences, a paradigm is defined as “a way of examining social phenomena from which particular understandings of these phenomena can be gained and explanations attempted” (Saunders et al., 2011, p. 118). Filstead (1979, P. 34) identified four objectives that are accomplished through the use of paradigms. Firstly, they serve as a guide to identifying the important issues confronted by professionals in a given discipline. Secondly, paradigms create an explanatory scheme to guide practitioners in framing the issues and problems identified. Thirdly, paradigms provide clear criteria for evaluating the appropriateness of the methodologies and techniques (tools) (i.e. data collection methods) used to conduct a research. Finally, they provide an epistemology to help researchers i) "make sense" of a phenomena and ii) view preceding tasks as "organising principles" to carry out the "normal work.”

Understanding the nature of paradigms enables researchers to identify the problems worth investigating and to decide what methods to be applied in addressing identified problems (Deshpande, 1983). Furthermore, a paradigm is considered as the philosophy of knowledge, while methodologies focus on the practices and methods used to arrive at new knowledge (Trochim, 2006). Therefore, underlying research paradigms and philosophies justify the methodologies adopted in a research (Maykut and Morehouse, 1996). Hence, it is necessary to examine the paradigms used in marketing research before explaining methodologies and research designs.

In selecting an appropriate paradigm, two concepts (ontology and epistemology) need to be clarified because they capture the researcher's view about the reality and knowledge and the researchers stand with regard to the development of knowledge. By understanding the researchers' disposition about reality and knowledge, the reasons behind selecting paradigms becomes clearer.

4-2-1 Ontological considerations

Guba and Lincoln (1994, p.108) proposed that ontological considerations are centred on the form and nature of reality, or in other words, the nature of "reality" that needs to be investigated. They explained that questions about "how things really work" and "how things really are" can only be answered in line with the assumptions made about the nature of real world. In the context of social research, these ontological assumptions are about the essence of the phenomena under investigations i.e. whether the social "reality" is external to the individuals or whether it is a "product of individual consciousness" (Burrell and Morgan, 1979, p.1)

Similarly, Saunders et al. (2011, p.110) explained that ontology is focused on the nature of the reality and they divided ontology into two subgroups of objectivism and subjectivism. They further noted that adherents to objectivism believe that "social entities exist in reality external to social actors concerned with their existence." In other words, social phenomena are considered independent of the mind and beyond the influence of social actors and observers (Bryman, 2008). Subjectivism on the other hand, suggests that "social phenomena are perception and consequent actions of those social actors concerned with their existence" (Saunders et al., 2011, p.110).

4-2-2 Epistemological considerations

Associated with the ontological considerations, epistemology deals with the relationship between the knower, or would-be knower, and the knowledge about the reality and knowledge (Guba and Lincoln, 1994). Linked to the researchers' ontological assumptions, the epistemological considerations are the second set of assumptions about how one can understand the world and reality and communicate findings effectively (Burrell and Morgan, 1979). These assumptions determine what form of knowledge is obtainable and how the "truth" be distinguished from "falsehoods". As explained by Saunders et al. (2012, p.132), "epistemology concerns what constitute acceptable knowledge in a field of study." By comparing positivist and interpretivist assumptions, they explained that positivists focus on causality and generalisations and data and facts are only acceptable if they are observable. On the other hand, interpretivists place more emphasis on the subjective meanings that lead to actions around social phenomena.

The positivists' epistemology aims at understanding the world through reasons and scientific methods (Deshpande, 1983). The experiences and observations of phenomena by positivist are informed by the senses, logical reasoning and empirical testing (Sjoberg and Nett, 1966). However, the application of positivism philosophy in the study of human beings has been criticised by many scholars beginning from the late 18th and early 19th century. The prevailing argument is that the social world is not a phenomena, but is formed by individuals whose minds serve as the source and creator of knowledge (Filstead, 1979). Therefore, a second approach (interpretivism) was developed to assess social phenomena from a subjective individual's viewpoint rather than an objective and structural view.

Interpretivism stems from Max Weber's theories and is concerned with the individuals that form a society. This paradigm focuses on understanding phenomena from the actor's frame of

reference (Bogdan and Taylor, 1975, P.2). Comparing positivist and interpretivists approaches, the quantitative paradigm is assumed to be “positivistic, hypothetic-deductive, particularistic, objective, outcome-oriented and natural science world view. In contrast, qualitative paradigm subscribes to a “phenomenological, inductive, holistic, subjective, process-oriented, and social anthropological world view” (Cook and Reichardt, 1979; p.p.9-10). In other words, while positivists see the social world from a scientific and objective viewpoint, interpretivists argue that social experiences and events are not the results of objective and separate rules; rather, they are manifestations of actions and decisions of the individuals forming that society. However, it is noteworthy that, although the different schools of thought are seen as independent and mutually exclusive, in reality, they should be viewed as extreme ends of a continuum rather than independent categories. Beliefs held within one epistemology can be shared with members of rival school of thoughts, thus, a philosophical continuum ranging from positivism to interpretivism is closer to reality than independent views (Deshpande, 1983).

In addition to research epistemology, researchers also need to select an ontological perspective in their philosophy. Concerning the nature of reality and social beings, all social sciences make ontological assumptions about reality (Hudson & Ozanne, 1988). Positivists suggest that only a single objective reality exists independent of individuals’ perception (Hudson & Ozanne, 1988). In other words, a social world exists as a real concrete structure, similar to a physical word, and independent of the perceptions and images of individuals (Hudson & Ozanne, 1988). Reality is seen to comprise only of real facts and not abstractions and as a result, knowledge is assumed to emerge from observations and experiments (Robson, 2002). For positivists, objective reality is observed, measured and predicted by using its observable fragments and divisions (Bagozzi, 1980; Hudson & Ozanne, 1988). In the social sciences, a positivist approach is normally taken in quantitative studies to measure a phenomenon or examine a new model (Tsoukas and Hatch, 2001). For example, if a study requires samples to be taken in

order to produce formal propositions and draw generalizable inferences about a phenomenon or a population via hypotheses testing, researchers often take a positivist approach (Orlikowski and Baroudi, 1991).

Interpretivists' ontological view on the other hand denies the existence of one true reality and suggests that the reality is the result of individuals mental processing and perceptions (Hudson & Ozanne, 1988). From this viewpoint, theories and categories only serve to help individuals to understand the world (Burrell and Morgan, 1979). Interpretivists focus on the complications of the human senses and how that affects interpretation and sense-making (Kaplan and Maxwell, 1994). They believe that reality is created socially and that human knowledge is formed, developed and maintained in social settings (Berger & Luckmann, 1967). Because of the number of people and possible social situations, a single conception of true reality may be misleading since the number of realities depends largely on social groups and the individual interpretation and perception of reality by social actors (Hudson & Ozanne, 1988). One important factor considered by interpretivist researchers is the context of the research. As reality is formed of these social situations and contexts, findings from a laboratory setting can differ significantly from reality (Hudson & Ozanne, 1986). According to Hart (2002), Interpretivism is best suited for examining ground theories, and for ethnographic studies, case studies, and action research.

The link between theoretical paradigms and research methodology has been emphasised in previous studies. Patton (2008) explained that in the quantitative paradigm, questions are answered using "hypothetico-deductive" methodologies. Furthermore, he suggested that the "good" sciences are the results of quantitative measures, experimental designs, and statistical analysis. He then showed that the qualitative paradigm on the other hand, is derived from anthropological fields of study where techniques such as in-depth interview and personal observations are applied. So, the latter relies on qualitative data and holistic analysis; the

descriptions are attained via close contact with the targets of the study. Furthermore, Cook and Reichardt (1979) explained the distinctions between the research paradigms in terms of the purpose of a research – determination of confirmation or discovery. They explained that, while quantitative methods are used to confirm or verify theories, qualitative methods serve in the discovery and generation of theories. Examining the research objectives developed in this study shows that they appear to be deductive and conclusive rather than inductive and explorative. In addition, hypotheses are developed based on previous studies, which highlights the confirmatory nature of this research and therefore indicates the appropriateness of a positivist approach.

In summary, Carson et al. (2001) clarified that the positivist approach is used to make deductions from quantitative research and to validate hypotheses. Furthermore, the main objective of positivists is to examine and validate theories by using statistical models and quantitative measures. Whereas interpretivists are more focused on ‘how’ and ‘why’ individuals play specific roles concerning a phenomenon (Carson et al., 2001). A positivist approach is suitable for this study because the theoretical model is created to understand a phenomena, measurable variables are developed from existing studies and the conclusions drawn from the sample will be generalized to the whole population.

4-3 Research Design

This research is designed to investigate the existence of possible relationships between SMS advertising and dimensions of online brand equity. In the literature review and theoretical framework chapters, the research objectives and hypotheses were developed and the gaps in knowledge were identified. Furthermore, the literature review showed that in the author’s best knowledge, the influence of SMS advertising on online brand equity in the UK has not been studied. Accordingly, a new model was developed to explain how SMS advertising might influence the dimensions of online brand equity. This model comprises of four parts. The first

part focuses on the relationships between various SMS advertising beliefs (such as Informativeness, and irritativeness) and attitudes toward using SMS advertising. The second part is concerned with the inter-relationships between the dimensions of online brand equity. In the third part, the proposed relationships between the attitude toward using SMS advertising and dimensions of online brand equity were modelled. Finally, the fourth part represents the links between incentive assessments and the identified dimensions of online brand equity. However, it should be noted that this separation is only theoretical and does not reflect in the data analysis and path analysis conducted in this study.

In order to conduct this research, it was necessary to select a research design that provides a good alignment for the research objectives, sampling methodology and data analysis. A good design also helps in the scheduling of the research to align with budgetary constraints (Hair, Bush, & Ortinau, 2003). Hence, a four-staged research design is developed for this study. Hair et al. (2003, p36), suggested that a research design should be formed in four stages, namely, 'determining of the information research problem', 'development of the appropriate research design', 'execution of the research design' and 'communication of the result'. Sekaran (2006) maintained that studies testing hypotheses should start with a literature review, and then develop an appropriate theoretical framework based on the review findings. Subsequently, hypotheses can be formulated, tested and logical conclusions drawn.

Therefore, in the first phase of this study, the relevant literature on brand equity, online brand equity, SMS advertising and mobile marketing was reviewed and gaps in the knowledge were identified. Accordingly, hypotheses were formed and a theoretical framework was presented. In the second phase, the research design is concerned with designing the research elements such as sample size, measurement issues, and scales (Hair et al., 2003). In this phase, the types of research (qualitative or quantitative) are also discussed. A quantitative (descriptive) research approach is deemed suitable for this study, because there are clear research objectives and

hypotheses and there is a need to test these hypotheses with a large sample size (Malhotra et al., 2007). Hence, to test the developed hypotheses and address the research objectives, this study applies a conclusive research approach. Based on a review of the extant conclusive methods, the single cross-sectional descriptive research design is the best suited method for this research considering the financial and time constraints (Malhotra et al., 2007).

Later in this chapter, explanations are provided on the process of conducting surveys and the rationale for the adoption of scales from previous studies. After reviewing the scales, necessary modifications will be made to number and order of questions to increase the accuracy of the research i.e. for questions measuring similar constructs, positive and negative statements will be used to increase the accuracy of collected data. This study will use questionnaire surveys and the questions are adapted from the literature on SMS advertising and the dimensions of online brand equity. The validity and reliability of the questions for each construct adopted from previous studies will be ascertained before using them in the study. After developing the questionnaire, it is examined for ethical issues ensure that the research meets stipulated ethical guidelines. Furthermore, a cover letter is attached to the questionnaires to inform respondents about the research and the purposes of the study. Finally, before conducting the survey, the questionnaire is examined for language issues, possible errors in questions, and the number of questions included. In addition, in this phase the sample size of the final survey will be determined.

In the third phase, after data collection, the data is cleaned and entered into a spread sheet. As part of the preliminary analysis, the reliability and validity of the measurement scales will then be assessed. This will be done by calculating the Cronbach's coefficient alpha for individual constructs and then using confirmatory factor analysis to assess the validity of the scales. In the final stage of the data analysis, the conceptual model and the proposed hypotheses will be tested in a path analysis using the Partial Least Squares methodology.

In the fourth and final phase, the results of the research are presented and the limitations and recommendations of the research will be outlined. Figure 4-1 demonstrates these four phases.

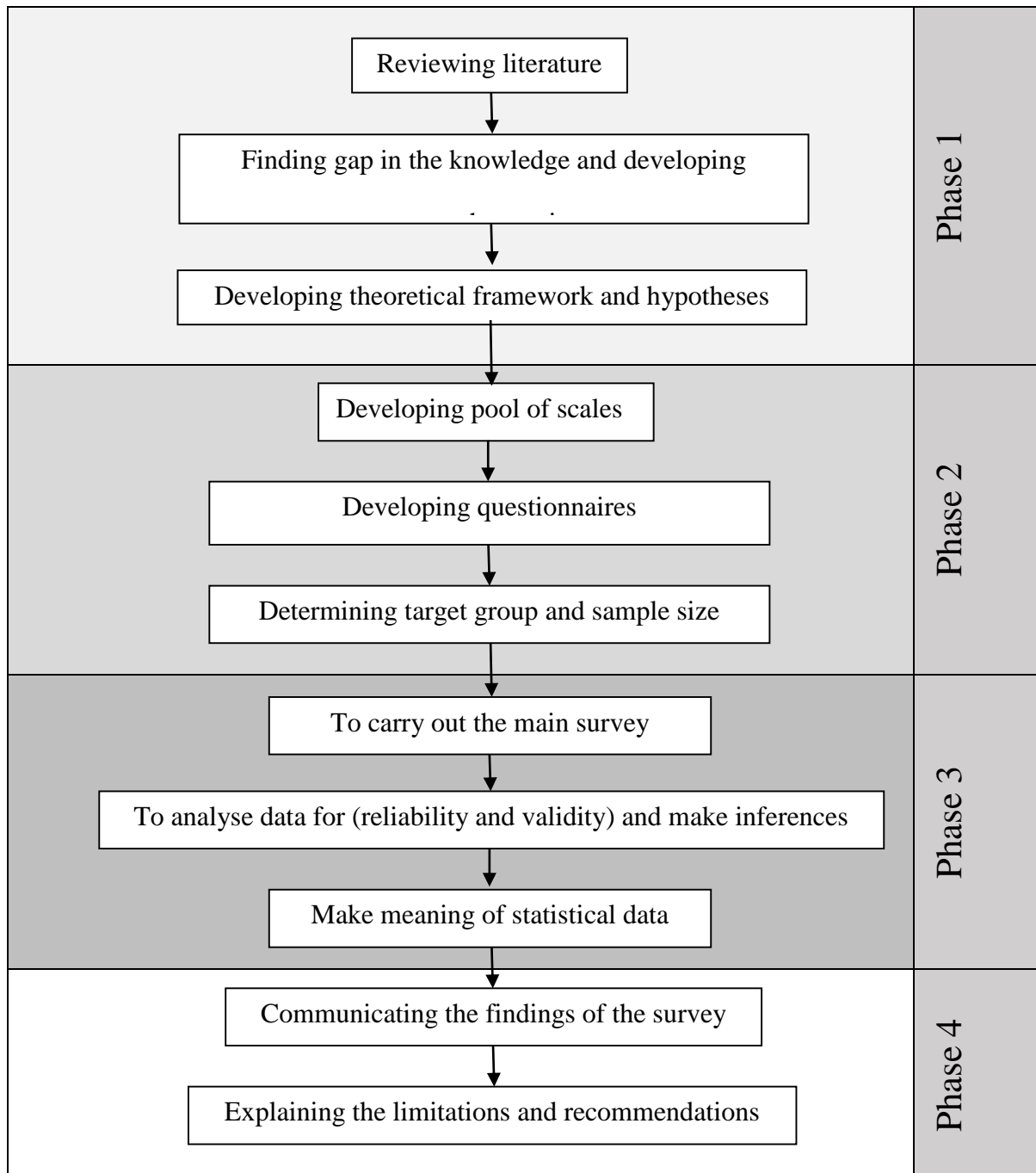


Figure 4-1 Research design developed based on Hair et al. (2003)

4-4 Quantitative approach justification

Hair et al. (2003) explained that, in determining an appropriate research approach (qualitative or quantitative), three questions need to be answered. These questions include: 1- The nature of the research problem, 2 - Whether the research tries to answer specific questions of why, when, where or how a phenomenon occurs in the market of a target population. 3- Whether the overall objective of the research is to identify or verify existing relationships. Accordingly, this thesis continues by explaining its position in relation to these questions.

- 1- Since this study deals with describing the influence of SMS advertising on brand equity (phenomenon) and generalizes the results to the whole population, a quantitative approach is more appropriate.
- 2- This research examines how dimensions of online brand equity are influenced by SMS advertising amongst students in the UK (target population). Therefore, referring to the second question, the application of quantitative approach for this study is supported.
- 3- The objective of this study is to identify the relationships between various constructs and to verify the strength of these relationships. As a result, the chosen approach is valid.

In summary, the positivists' view adopted in this study, which would enable the researcher to examine broad social phenomena by predicting and measuring its components, allows for selecting a quantitative approach for this research. Furthermore, the selected approach is supported by looking at the objectives of the research and required methods to fulfil them. In order to test the developed hypotheses and address the research objectives, this study applies a conclusive research approach. In this context, a single cross sectional descriptive research design is the best possible method for this research considering the financial and time constraints (Malhotra et al., 2007). A descriptive research design is applied when the research questions and hypotheses are clearly developed and there is a need to test these hypotheses

with a large sample size (Malhotra et al., 2007). A single cross sectional study is used since all the information required and the sample groups are collected and tested in the same time frame (Malhotra et al., 2007).

Marketing researchers can collect data about consumers in three ways: observing consumer behaviours, surveying respondents, or conducting experiments (Hair et al., 2003). When descriptive research and causal relationships are investigated, surveys are the most widely accepted and applied technique among these three methods (Hair et al., 2003). Consequently, in line with previous studies in this domain, a survey approach is considered acceptable for this study due to the nature of the research objectives and hypotheses developed.

Questionnaire surveys are one of the most applicable research tools for both academics and practitioners in marketing research. When it comes to collecting data from large sample groups, questionnaires have been proven to be very practical and useful (Gratton and Jones, 2004). Generally, questionnaire surveys are of three types based on the level of administrations, namely personally administered survey, telephone administered survey and self-administered survey (Hair et al., 2003). While personally administered surveys and telephone surveys need the researcher to collect and enter the data, the self-administered surveys are done in absence of the researcher/interviewer (Hair et al., 2003). In view of that, it is important to choose among the various types of survey such as face to face, telephone, internet or postal. In order to choose the best survey method for this study, various factors such as sample size, sample group, questions type, questionnaire length, and duration of data collection need to be determined (Aaker, Benet-Martínez, & Garolera, 2001).

In this section, the advantages and disadvantages of self-administered structured questionnaire survey will be explained and the rationale behind the research methods selected are elucidated. The self-administered survey refers to the situation where the questionnaires are completed by

respondents in the absence of the researcher/interviewer. The completed questionnaires/surveys are then collected at a later stage (Hair et al., 2003). Personally administered surveys, on the other hand refer to surveys where the interviewer asks the questions from the respondents and enters the data him/herself. There are advantages and disadvantages for each approach, for example while personally administered surveys provide the opportunity to contact the respondents directly and therefore presents the opportunity to obtain more information by asking for details about their responses, it is difficult to conduct this form of survey for large samples (Hair et al., 2003). However, self-administered survey are criticised because the meaning of responses or the respondents questions cannot readily be clarified in the absence of an interviewer (Hair et al., 2003).

The reason for choosing a self-administered survey is to capitalise on the advantages of this approaches. For example, Kolb (2008) showed that the presence of the researcher could negatively affect response bias. Self-administered surveys on the other hand can protect the respondents' privacy and anonymity (Burns & Bush, 2002) and tend to be cost and time effective and less biased as the researcher cannot influence the respondents' answers (Kolb, 2008).

This study has therefore adopted a survey based methodology using a structured questionnaire. The survey administration included two types of self-administered methods where questionnaires were completed by the respondents and returned to the researcher. It should be mentioned that after collecting the data, statistical tests were carried out to check for significant variations in the responses from these two types of samples.

In these self-administered methodologies, the sample groups (students) are asked to attend voluntarily either after/before their lecture, or in the university's communal areas. Before asking students to fill out the questionnaires, the researcher explains the topic and purposes of

the research to familiarize the students with the topic. However, explanations are provided in a manner that does not bias the students' responses to the questions. Following the introduction, the researcher asks students about their mobile network service provider and hands them the questionnaires. The questionnaires are then answered and returned to the researcher after completion.

4-5 Online brands

Before conducting the survey and determining the sampling framework, decisions should be made on selecting an appropriate market sector and choosing suitable online brands that fit the purpose this study. In this thesis, online brands developed by telecommunication companies to improve their consumer-brand relationship and brand loyalty are selected. In other words, the selected online brands, in this study, provide the consumers – of the telecommunication company—with exclusive offers, price discounts, and information.

It is suggested that the selected online brands, which operate as a loyalty programs in the daily deal sector, are a good fit for this research for the following reasons. Firstly, they are pure online brands and focus on consumers-brand relationship. This is in line with identified gaps in the literature, which called for further research on brand equity in the digital context (Keller, 2016).

Secondly, there are new reports such as eMarketer (2016 a) which show that consumers prefer SMS as a communication medium to receive loyalty offers. Hence, the online brands in this research fit the purpose of the research because; (I) they are designed to improve the consumers' loyalty to the telecommunication companies. (II) Telecommunication companies collaborate with online brands to use SMS as a communication tool to send advertisements and forward available offers to consumers.

Telecommunication market is the leading sector focused on mobile communication evolution (Steinhour, 2014). In a survey conducted by Adobe, Steinhour (2014) explained that the strategic marketing priority of telecommunication companies is on digital marketing and is reflected in the higher marketing budget allocations in comparison to other sectors. She showed that while 48% of the marketing budget is allocated to digital marketing in telecommunication sector, about 38% is allocated for other sectors. Furthermore, IAB (2015b) explained that as a result of new technologies and methods for engaging with consumers, telecommunication companies can find better opportunities to exploit such advancements with their consumers using digital advertising. They maintained that technology and telecommunication companies are big spenders in digital advertisements and investments in digital advertising is expected to grow in future.

Hence, one of the ways that telecommunication companies differentiate themselves from their competitors is by improving bonds with customers with offers of exclusive access to online brands (that are being examined in this research). Associated telecommunication companies use SMS advertising as a form of communication to send offers from the online brands to their customers to create brand loyalty. These online brands are landing pages and mobile applications that provide a variety of services/products. These online brands use SMS and other mobile communication tools to connect to customers and update them about available services, events, and discounted products and services such as books, sports gear, and cinema tickets. Thus, the fact that online brands remain active in daily deal sites sector and use SMS advertising to update consumers about their offering makes them suitable for the purpose of this study.

Furthermore, the online brands collaborations with other retailers (more than 3000 retailers in the UK) allow for higher diversity of the text messages (i.e. text messages about those retailers) that the online brands could forward to their customers; this is another reason for selecting the

specified online brands. The online brands co-operate with other sectors (i.e. retailers) to send interesting SMS promotions to customers. These collaborations produce text message advertisements that are more diverse compared to receiving messages from only a single brand. While it is difficult or even irritating for a brand to send promotional text messages continuously, this diversity allows selected online brands to send SMS advertisements more frequently (i.e. consumers are promised to receive maximum one message per day). Therefore, studying the selected online brands are deemed more insightful when it comes to investigating factors such as attitude toward using SMS advertising and incentives assessments.

Finally, the online brands linked in telecommunication sector are selected in order to make conducting the survey more efficient. It is harder to find customers of specific brands in other sectors (i.e. online restaurants or daily deal sites such as Groupon). However, it is easier to find customers of telecommunication companies, because students are likely to be registered with at least one of these brands. This helped with saving time and costs by asking the students if they had received marketing text messages from the selected online brands.

Based on consumers' prior behaviours, interests and geo-locations; online brands use real-time insights to send targeted advertisements and sales promotions via mobile phones (i.e. using SMS advertising and mobile apps) to generate unique experiences for the telecommunication companies' consumers. In order to fulfil this objective, online brands operate in daily deal market and send promotions in collaborations with third-party brands. This is beneficial for both brands; as well as for the online brands consumers who receive benefits by staying connected to such brands (i.e. promotions from both online brands and third party brands). For the third party brands, it is also fruitful as they can target customers who have opted-in to receiving text messages as new marketing leads.

4-5-1 Selected brands among the industry

Since the purpose of this study is to examine the effect of SMS advertising on online brand equity (for loyalty programs active in daily deal sites), selection of online brands associated with the telecommunication companies is justifiable as explained in previous section. Unfortunately, accurate data on the market shares of daily deal sites in the UK and the market share for each brand are unavailable.

Initially, seven telecommunication companies with the largest market shares in this sector were selected (comprising 81% of the whole market in 2013) (Statista, 2013). Three of the brands were removed from the survey due to low number of respondents. Although among these three brands, two of them were expected to have fewer respondents, for the third brand, it was rather surprising. However, this was attributed to the high price of the third brand and the fact that the respondents were students. Students are generally ranked among the lower income groups and this partly explains why the third brand showed lower response rate.

Out of the remaining four companies, two of them were excluded because they had not practiced SMS advertising, and were thus unsuitable for the purpose of this study. The remaining two brands comprised almost 40% of the market (Statista, 2013). Subsequently, the online brands associated to each telecommunication company were selected for this study. Based on a report from Marketing Week in 2014, among the consumers who were registered with online brands providing similar services, it is shown that the two online brands include 75% of the subscribers to mobile incentive schemes.

Furthermore, these two were considered comparable because:

- 1- Both brands had specific online landing pages for the SMS marketing messages sent out (i.e. when a new offer was sent to consumers via text advertisements, consumers could check it online on the specific pages for those brands).
- 2- Both brands were extensions of parent brands, which were active offline and online in telecommunication industry.
- 3- Both brands had similar products and offers, as a mother company and as an extension.
- 4- Both selected brands were only available online and did not have offline shops.
- 5- Both brands had mobile applications as well as online pages.
- 6- Both brands advertised their own products as well as sponsoring other brands.

[XX]: Fancy a break from all the Christmas cooking? Get 35% off when you spend £35 online with Domino's Pizza. [blank] Just open the [XX] app to get your code. Offer ends 4 January. Terms apply. To stop text call [phone number]

[XX]: Scents you'll love at a massive saving. Get £10 off a £20 spend the body shop in-store and online. [Blank]. Open the app here [Link]. Terms apply. To stop texts call, [phone].

Here's to 'More than 12 days of Christmas'. Win daily prizes until 29 December. Today's bundle is a PlayStation 4, a LG G Watch R, a Bluetooth gaming keyboard, wireless headset and charging case. See the prizes [link- includes XX name]. To enter, buy an app using charge to Mobile. To stop texts, call [Phone number]. Terms apply.

[XX]: Want 5 good reasons to consider the New Galaxy S5? Here they are [Link]. Terms apply. To stop [XX] text stop to [phone number].

[XX]: Have you enjoyed your thank you treat from [xx] yet? Don't hang around. We'd hate for you to miss out. Open the app and head over to [xx] section to see what it is. Terms apply. To stop texts call [phone number].

[XX]: Have a gift on us. It is our way of saying thanks for being with us for 2 years this month. Argos or Debenhams vouchers what will you choose? Visit your [xx] app to claim yours. Make sure you have the latest version though. Terms apply. To stop texts call [phone number]

Hi Mehran. You get tons of benefits just for being with [xx]. Make sure you make the most of them, check them out now [link]

Mehran, rent the latest films for just £1 with [xx], win FA Cup final tickets and loads more. Take a look [Link]

Mehran, get tickets to events you'll love, plus lots of more entertainment and great offers. See for yourself [link – includes xx name]

Table 4-1 SMS Samples

In addition to similarities of the brands, the content of text advertisements were also examined. It was found that both brands used similar messages in their promotional mix i.e. sales promotion and advertising. Table 4-1 shows a sample of text marketing messages sent by both brands.

In clarifying the nature of the online brands under study, it should be noted that each brand has its own specific online webpage (landing page) and mobile application for offering exclusive premium services such as discount vouchers and other services to consumers. Furthermore, when consumers are targeted via SMS advertising, they are directed to these brands' landing pages or mobile applications.

The brand equity of these online brands are suggested to be different from the telecommunication service company due to the following reasons:

- Although these online brands are formed to increase consumers' retention rate and loyalty to the telecommunication brands, the online brands have their own identity (i.e. their own specific website and mobile applications).
- In the assigned websites' landing page or mobile application, only information about exclusive services, gifts, and promotions are available and these online brands do not focus on providing information about the telecommunication companies' products or services.
- As the focus of this study is on brand equity, the distinction between the online brand and the telecommunication company becomes even clearer when the dimensions of brand equity are compared between two brands.
 - o Firstly, with regard to the brand awareness, it is suggested that while the consumers of the telecommunication company are aware of its brand, they may

not be aware of the online brands that offer exclusive services to that telecommunication company.

- Secondly, when it comes to associations and brand equity dimensions such as perceived value and loyalty, the factors that influence the perceived quality and associations of the telecommunication company are mainly different to the ones that affect the online brands.
- Finally, with regard to brand loyalty, it is clear that online brands are formed to increase the loyalty among the consumers of the telecommunication brand, because loyalty to online brands means that consumers need to remain with telecommunication companies to be granted access to these exclusive services. However, on the other hand, the loyalty to telecommunication brand may not necessarily translate to loyalty to online brands, as consumers may not be aware of the online brands.

In summary, this thesis suggested that the brand equity of the specified online brands are different from those of the telecommunication company. It is justifiable because; online brands have their own identity, and the online brand equity dimensions such as brand value and brand loyalty for online brands are different from telecommunication brand.

Figure 4-2 shows samples of the mobile applications and webpage similar to online brands under study.

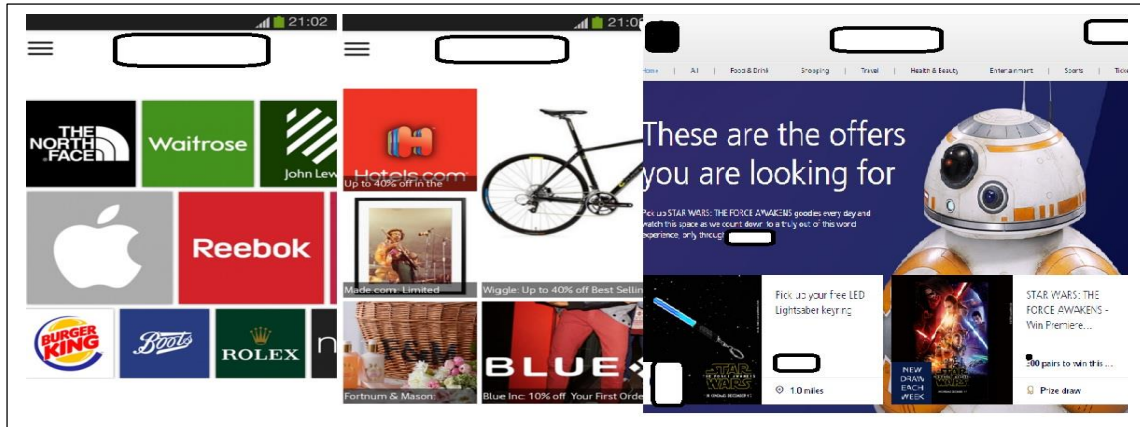


Figure 4-2 Online brands

4-6 Target population and sampling framework

After determining an appropriate research design and approach, it is necessary to define the target population, sampling framework and research procedure. In this section, the reasons for choosing students as the study population will be explained and subsequently the target population is defined. Furthermore, justifications for conducting research in the UK context are presented.

4-6-1 Student Samples

Hair et al. (2003) identified four main criteria for choosing the right respondents in a study. The respondents of a study should:

- 1- possess the required information
- 2- be knowledgeable about the topic and purpose of the study
- 3- be accessible
- 4- be available during the occurrence of the research

Accordingly, students are chosen as the target population because younger populations are generally considered a better group for conducting this type of research for the following reasons:

- 1- In a report from the online brands, it was suggested that consumers who are aged between 18 and 34, are more likely to sign up with the specified online brands.
- 2- The interest in joining such online programs drops dramatically for higher age groups i.e. from 20% for younger age groups to 10% for the respondents aged 35-64 and then 4% for the age group of 65 and over.
- 3- As explained in the sub-section on brand selection, the purpose of online brands is to provide consumers with advertisements and promotional offers. In a recent study conducted by eMarketer (2016 b), it was shown that decision-making by millennials is more likely to be influenced by promotional offers. In a similar vein, eMarketer (2014 a) identified millennials as a key segment for loyalty programs, as they are more likely to interact with companies to receive benefits and deals. Therefore, because the age group of 18-34 is determined as a key segment and most university students fall within this range, it is suggested that student samples are suitable for the purpose of this study.
- 4- The smartphone ownership among UK adults grew significantly from 44% to 54% in 2011. This growth was more visible among young consumers i.e. young users aged between 16 and 24 experienced a 15% more smartphone ownership, while the rate of growth for consumers aged between 24 and 34 was 13% (Ofcom, 2013). This smartphone ownership is important from two perspectives; firstly, it shows that internet is going to be more available to young consumers, and secondly, there is a greater tendency for students to become familiar with mobile applications. Young consumers aged between 16 and 34, are more likely to get involved in online activities, such as online shopping and webpage surfing compared to older age groups (Ofcom, 2013). As

a result, there is a greater chance that young population have visited the researched brands' mobile applications or websites.

In addition to familiarity with the internet and smartphones, the young consumers are also savvy in SMS and text message communications and they are more prone to use these services to communicate with their friends and family (Ofcom, 2012). Around 9 in every 10 consumers in the UK aged between 16 and 24 use SMS as a primary means of communication (Ofcom, 2012). Because of the greater familiarity of students with SMS communication and online activities in the UK, choosing young consumers as the target population is more justifiable.

The application of student samples in branding studies also suggests that students are good respondent population for these sorts of studies. Yoo & Donthu (2001) for example used student sample for their study of brand equity. Aaker and Keller (1990) and Martinez and de Chernatony (2004) also used student sample for branding studies. Quester and Lim (2003), Grimm, (2005), O'Cass and Grace, (2004) and Hayes et al. (2006) proposed that using students as sample group for investigating the consumption behaviours and perceptions in marketing research studies is acceptable.

In Summary, selection of students as the research population is justifiable because they are more internet savvy and more expert in the use of smart phones in comparison to older age groups. However, using student samples can be restrictive when it comes to generalizing the results of the study.

4-6-2 Selecting UK

Selection of the UK as the research context is justifiable because:

1- The online brands are both present in websites and mobile application formats. Therefore, high penetration of smartphones and consumers' ubiquity in the online environment, makes the UK a suitable context to conduct the research on online brands.

Reports show that consumers' acceptance of the internet and using online services is increasing dramatically in the UK (Ofcom, 2013). The adult population in the UK, spent about 17 hours weekly on average in the internet and using e-services in 2013; compared to 15 hours in 2011 (Ofcom, 2013). This increase in acceptance of internet and online activities suggests that people are becoming more familiar with websites and online brands and therefore it makes the UK an appropriate context to carry out a research on online brands.

Furthermore, as data suggests, more than 50% of adults in the UK use their smart-phones to connect to the internet (Ofcom, 2013). As the online brands examined in this study have their own mobile applications, this acceptance of smart phone usage among the UK population, can aid the investigation of the possible effects of SMS advertising on online brands.

2- Loyalty programs are popular among the UK internet users.

“Loyalty schemes are big business in Britain, with more than 40 mainstream programmes on offer. And while they're an invaluable tool for retailers to collate data about their customers and their spending habits, as shoppers we are failing to reap the benefits.” (Blackmore, 2015, 6th Oct)

In a survey conducted by eMarketer (2016 c), it was found that 49% of the internet users in the UK were members of one or two loyalty programs and an additional 32% of the respondents were member of three to five loyalty programs. Furthermore, in the same report it was shown

that consumers' expect some form of rewards from the loyalty programs. Hence, due to the popularity of loyalty programs in the UK, the UK is considered a suitable context to investigate the online brands that operate as loyalty programs.

3- In the UK, SMS marketing is not as effective as USA and other European countries for marketing purposes. So the insights can highlight its potentials.

According to eMarketer (2013), the UK is lagging behind some other major EU markets and USA in terms of the potentials of SMS marketing. For example, the influence of text marketing on consumers' purchase intention varies widely across European markets. While Spain leads with 34%, Italy, France and US followed with 31%, 27% and 22% respectively, and the UK lags with only 8% (eMarketer, 2013). This relatively low influence of SMS marketing on purchase intention in the UK prompts this research to investigate: (a) what characteristics of SMS advertising are highly correlated with attitude toward using such services. (b) Whether SMS advertising is linked to the dimensions of online brand equity.

4- Time and economic constraints also contributed in selecting the UK.

4-6-3 Sampling

In order to determine and targeting the sample group, Churchill and Brown's (2004) suggested framework is adopted in this study.

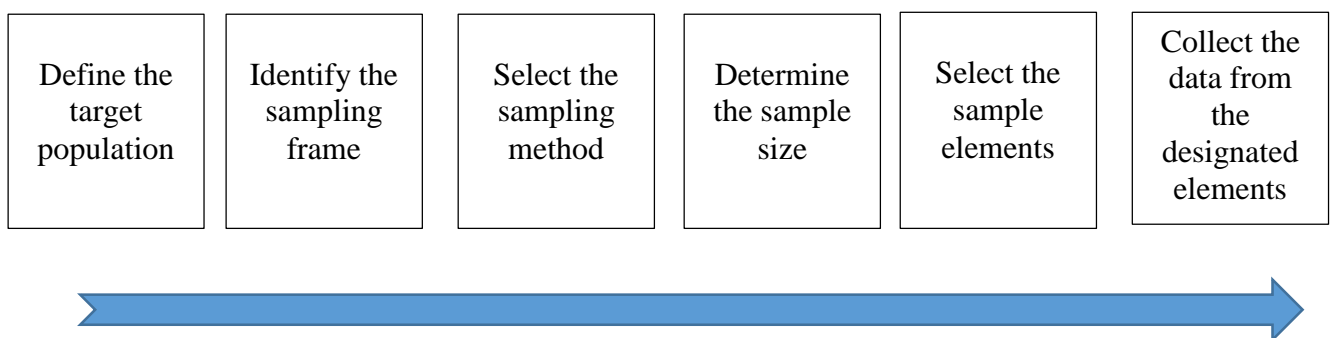


Figure 4-3 Determining sample group based on Churchill and Brown (2004)

4-6-4 Defining the target population

The actual target population for this research are students who own mobile phones and are registered with one of the two telecommunication brands under study. However, as it is impossible to find the exact number of the students registered with these brands, it is required to use estimates to calculate the population size. In order to calculate the required sample size, with a good estimate, the target population will be regarded as the students in the UK who own mobile phones.

4-6-5 Identifying the sampling frame and method

As it is impossible to acquire a comprehensive list of student identification numbers in the UK to carry out a simple random sampling, in this research convenience sampling is considered as the best practice. A convenience sampling is a form of non-probability sampling technique that allows the researcher to target the sample groups based on ease and availability (Saunders et al., 2012). Although there are some arguments about the validity and reliability of the data collected using non-random sampling, it is suggested that due to financial restrictions and resources, this method was the best available method to conduct this research. Although this form of sampling can cast doubts on the representativeness and independence of the sample group, it is argued that student samples are homogeneous and the impact of uncontrollable confounding variable is somewhat negligible (Homburg and Koschate, 2004 cited in Matzler et al., 2006). Peterson (2001) compared the student samples with non-student groups and found that students are more homogenous and extraneous variables are less effective and create less noise for this group. Consequently, it is suggested that the data collected from this form of sampling can be generalised for the research population, although the sampling methods are not completely random.

In this study, two methods are applied to sample the respondents. Firstly, students were approached after/before their lectures at the University of Salford and the questions were handed to them to be filled in a self-administered manner. Secondly, students were asked to volunteer to take part in the common areas (i.e. libraries) of universities in the UK.

4-6-6 Determining sample size

The total number of students in UK who enrolled in 2010-2011 academic year is 2,496,645, out of which 1,925,140 are undergraduate students and 568,505 are postgraduate students (Higher education statistics agency, 2014). Furthermore, it is found that two selected brands for this study serve almost 40% of the market (Statista, 2013). Therefore, the total sampling population is the product of the total population by 40% (the market share) which equals to 998,658 students. Using statistical techniques (the confidence interval approach) suggested in Malhotra et al. (2007), a sample size of 384 is required for 95% confidence level and confidence interval of 5.

Although using statistical technique suggests that 384 respondents are required, it is argued that using PLS-SEM techniques in CFA reduces the sample size requirement, as they can produce statistically significant results with smaller sample sizes (Hair et al., 2014).

The small sample size requirement is a prominent advantage of using PLS-SEM analysis (Hair et al., 2012a; Ringle et al., 2012). Furthermore, in a more recent study Hensler et al. (2014) investigated, the robustness of PLS-SEM analysis with a fewer sample size and found that; PLS-SEM outperformed other methods in analysing studies with small sample sizes.

There are various methods for determining the minimum required sample size for PLS-SEM path analysis. Barclay et al. (1995) and Hair et al (2014) suggested that the minimum sample size should be equal to: (I) The highest number of formative indicators that are used to measure a single construct multiplied by ten (II) Ten times the largest number of structural paths in the

inner path model that are pointed to a single construct. As there is no formative indicator in the proposed model, minimum required sample size for this study can be calculated as:

Highest number of arrows pointed at a construct x 10:

$$6 \text{ (arrows pointed at attitude toward using SMS advertising)} \times 10 = 60$$

Therefore, based on this proposition 60 samples are required to conduct a statistically acceptable test.

Similarly, Marcoulides and Sanders (2006) developed a table and suggested that minimum sample size with the significance level of 5% can be calculated based on number of arrows pointed at the construct.

Minimum sample size required	Maximum number of arrows pointing at a construct in a model
52	2
59	3
65	4
70	5
75	6
80	7
84	8
88	9
91	10

Table 4-2 Minimum sample size based on Marcoulides and Sanders (2006)

According to this proposition, the required sample size for this study is 75. However, Wong (2013) suggests that only because PLS-SEM is powerful in handling small sample sizes, one should not focus on fulfilling the minimum required samples. Hoyle (1995) proposed that a

sample size of 100-200 is a good starting point to carry out path modelling. Accordingly, it is concluded that the overall number of samples taken in this study (348) is acceptable and fulfils the minimum required levels. This sample size is justifiable because, Comrey and Lee (1992) consider it a 'good' sample size. Furthermore, it is well above the recommended number of samples suggested by scholars such as Barclay, Higgings & Thompson (1995) who explained that a sample size should be 10 times the number of structural paths pointing to a construct. Additionally, 348 samples are more than what Guilford (1954) and Cattell (1978) respectively recommended at 200 and 250 samples to conduct the test.

4-7 Scale adoption process

All the measurements and questions in this research were adopted from previous studies to ensure that the developed questionnaires have a good degree of accuracy and precision. This is due to suggestions that using previously developed and evaluated questions (from reliability and validity perspective) is preferable in comparison to developing new measures (Straub et al., 2004). Two criteria were in mind when choosing the measures; firstly, the reliability of the measures should have been deemed satisfactory (i.e. Cronbach alpha over 0.7). Secondly, the validity of the measures should have proved to be acceptable. In order to measure the dimensions of brand equity (awareness, brand trust, brand value, and brand loyalty), the scales were adopted from Christodoulides et al. (2006), Ding et al. (2011), Flavian et al. (2006), Morgan-Thomas & Veloutsou (2013), Kim et al. (2007), Rios & Riquelme (2010), Page & Lepkowska-White (2002) and Yoo & Donthu. (2001).

For message characteristics such as incentives assessments, informativeness and irritativeness, measures were adopted from Chellappa and Sin (2005), Darke & Chung (2005) Xu (2006) and Li et al. (2002). The mobile channel related attributes namely importance of permission and consumer control were adopted from Dickinger and Kleijnen (2008), Jayawardhena et al.

(2009) Merisavo et al. (2007). Finally, scales to measure attitude toward using SMS advertising were adopted using Bauer et al. (2005) and Xu (2006).

It should be noted that it is illegal in the UK to practice any form of SMS advertising without consent from consumers. Therefore, consumers who have received text messages have provided some form of consent beforehand. Hence, to examine the effect of permission, the importance of permission from the consumers perspective is measured with questions such as “Generally I would only be prepared to receive SMS advertisements if I had provided my permission.” The developed questionnaire used a multiple item, seven point Likert scale; starting from 1-very strongly disagree to 7- very strongly agree. The developed questions for each construct are presented in table 4-3. It should be noted that in the table, the name of the online brand is replaced with XX marks.

The questionnaire survey is divided into three sections. In the first section, the questions relevant to SMS advertising are presented and respondents were expected to choose how they feel about each statement from 1- Strongly disagree to 7- Strongly agree. In the second section of the questionnaire, respondents’ data such as their age and income, and their perceptions about privacy and risks in SMS advertising is collected. Similarly, some of the questions in this section were presented in a seven scale Likert. In the third section, questions about online brand equity were presented and the dimensions of online brand equity were examined. A copy of anonymous questionnaire can be found in appendix v.

<u>Attitude toward Using SMS advertising (ATUSA)</u>	
This thesis adopts Pollay & Mittal's (1993) definition of attitude toward an object and extends it to the attitude toward a behaviour. Accordingly, attitude toward using SMS advertising campaigns is defined as "an individual's summary evaluations of using SMS advertising." Subsequently, consumers' are asked to answer the following questions with regard to the online brands' SMS advertising campaigns.	
Using SMS advertising is a good idea. Using SMS advertising is a wise idea.	Xu (2006)
I find receiving advertising messages via the mobile phone positive. I appreciate receiving SMS advertising	Bauer et al. (2005)
<u>Brand Awareness</u>	
This thesis adopts the Keller's (2008, p.8) conceptualisation of brand awareness, which is defined as customers' "ability to recall and recognize a brand" and the extent that they know about the brand.	
I know what my XX looks like. I can quickly recall the name of XX I am aware of XX	Rios & Riquelme (2010)
I can recognize XX among other competing services.	Yoo & Donthu (2001)
<u>Brand Loyalty</u>	
This research focuses on brand loyalty from an attitudinal perspective in line with Oliver (1999). Applying consumer buying behaviour and attitude formation literature, Oliver (1999, p. 34) defined brand loyalty as "a deeply held commitment to re-buy or re-patronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behaviour".	
Even if another brand has same features as in XX, I would prefer to use XX It is unlikely I use XX again	Morgan-Thomas & Veloutsou (2013)
I encourage friends to do business with XX. I say positive things about XX to other people. I will use XX in the next few years. I would recommend XX to someone else	Ding et al. (2011)
I consider myself to be loyal to XX XX would be my first choice	Yoo & Donthu (2001)

<u>Brand Trust</u>	
Studies by Rana et al. (2015), Christodoulides et al. (2006) and Rios & Riquelme (2010) among others, have suggested that consumers' trust and peace of mind in dealing with a brand is a source of online brand equity. This study adopts the definition of brand trust by Delgado-Ballester's et al. (2003, p.37) who conceptualised trust as "the confident expectations of the brand's reliability and intentions in situations entailing risk to the consumer". This definition is adopted as it incorporates aspects of consumers' 'expectations of brand promises' and 'perceived vulnerabilities'.	
I feel safe in my transactions with XX. I trust XX to keep my personal information safe. XX has my confidence.	Christodoulides et al. (2006) Rios & Riquelme (2010)
I think I can have confidence in the promises XX make. I think the information offered by XX is sincere and honest. XX doesn't make false statements.	Flavian et al. (2006)
<u>Brand Value</u>	
In this research, similar to Liu et al. (2015), Kim et al. (2007), He et al. (2010), He et al. (2012), Kim & Gupta (2009) and Wu et al. (2014) perceived value is viewed from the perspective of trade-offs between gains and sacrifices. Accordingly, Zeithaml's (1988) conceptualisation of value as received benefits in comparison to given (costs) is adopted in this study.	
Compared to the time I need to spend, the use of XX is worthwhile to me. Overall the use of XX delivers me good value Compared to the effort I need to put in, the use of XX is beneficial to me.	Kim et al. (2007)
<u>Consumers Control</u>	
Barwise & Strong (2002) explained that perceived control refers to the assessment of whether the process of SMS advertising can be controlled by consumers. It is characterised by the degree to which consumers' believe they can (have the ability to) control SMS advertisements (Barwise & Strong, 2002).	
I can control when I receive SMS advertisements on my mobile phone from XX. I am in control over the amount of advertising SMS messages I receive from XX.	Dickinger & Kleijnen (2008)
I can choose the types of message that I receive from XX (text message, picture message or video message).	Jayawardhena et al. (2009)
<u>Incentives assessment</u>	
In line with Darke & Chung (2005), this thesis conceptualises incentives assessments as the consumers' overall assessments of the promotional offers.	
I find SMS promotions sent from XX attractive. I find SMS promotions sent from XX a good buy. I find SMS promotions sent from XX extremely fair.	Darke & Chung (2005)

<u>Importance of permission</u>	
This construct refers to the consumers' perceptions about the importance of asking for their permission when targeting them with SMS advertising (Merisavo et al., 2007)	
Generally I would only be prepared to receive SMS advertisements if I had provided my permission. Generally it is important for me that I can control the permission to receive SMS advertising. It is important for me that I can refuse to receive SMS advertising generally.	Merisavo et al. (2007)
<u>Informativeness</u>	
Informativeness is conceptualised as the ability of advertisement to effectively convey useful and helpful information to consumers Ducoffe (1996).	
SMS messages sent by my mobile networks, provides the information I need.	Xu (2006)
Through advertising messages (sent by XX) via the mobile phone I receive timely information. Through advertising messages (sent by XX) via the mobile phone I receive exclusive information	Chellappa and Sin (2005)
<u>Irritativeness</u>	
An irritating advertisement is conceptualised as one that is "provoking, causing displeasure and momentary impatience" (Aaker & Bruzzone 1985, p. 48). Moreover, irritativeness is suggested to be more negative than dislike (Aaker & Bruzzone, 1985) and less negative than offensiveness (Bauer and Greyser, 1968).	
I find SMS advertising messages from XX -forced -Distracting -Disturbing -Interfering -Intrusive -Obtrusive	Li et al. (2002)

Table 4-3 Constructs and scales

4-8 Data collection method

To collect the required questionnaires, two methods were approached. Firstly, after obtaining the required permissions from the target lecturers and universities, the researcher attended the arranged lectures and collected data from the volunteers. Using this method, 6 lectures were attended to collect data from 80, 40, 100, 200, 200 and 150 registered students respectively. In

total, 138 questionnaires were obtained, which shows a response rate of 17.9%. The response rate of students was lower than expected 70-80 percent due to the following reasons:

- To qualify for the survey, respondents needed to be registered with two specific telecommunication companies. Some students did not qualify because they were registered with other companies.
- Among the registered students, some had never received any SMS advertising messages. Therefore, the researcher could not study those groups.

Secondly, the researcher used a convenience sampling method, in which students were approached in common areas of the university (such as library and student union) where the questionnaire survey was explained. After explaining the purpose of the research and receiving their agreement to participate, students were asked about the brand to which they were registered. A total of 210 questionnaires were collected using this method with a response rate of 43% (210 out of 488), which was much higher than the first approach. Although the response rate using the second method is higher than the first method, compared to previous studies it is still low. The main reason behind this is the nature of the data collection in the research. The condition that respondents were required to be registered with one of the two specific brands, reduced the response rate. This low response rate can also be attributed to number of different competing brands in the telecommunication sector and the fact that many of the students approached were registered with other brands. Furthermore, the other obstacle, which is apparent in all questionnaire survey practices, was that the respondents unwillingness to participate in the research.

In total 348 questionnaires were collected. After screening the questionnaires and checking for unanswered questions, 37 questionnaires were omitted as they had too many unanswered questions or biased answers i.e. all the questions were answered as neutral (or choosing 4 in

the questionnaire). Therefore, the data analysis was carried out on the remainder of 311 questionnaires. This gave an overall successful response rate of 27.6%.

4-9 Validity and Reliability

4-9-1 Reliability of the scales

Reliability refers to the extent to which the developed scales are able to reproduce similar results if applied at a different time or using a different sample group (Hair et al., 2003). In other words, the scales are considered reliable when they produce similar results in different applications, or with various sample group (Netemeyer et al., 2003).

Two main techniques used to examine the reliability of scales are, test-retest and internal consistency (Pallant, 2002). Because this study examined scales for multidimensional constructs and the survey was only carried out once, internal consistency techniques were used to examine the reliability of the scales. This is due to the fact that in test-retest techniques, access to the same respondents in a different time and date is required, which was not feasible in this research due to costs and time constraints. Internal consistency involves examining the correlations between responses for different questions in the questionnaire. It measures the consistency of the responses for different questions and tests if there are correlations among them (Saunders et al., 2012).

In order to calculate the internal consistency and reliability of measures, two methods are normally applied, namely split half and Cronbach's (1951) alpha. Split half techniques are criticised because the outcomes can change depending on the manner in which the questions and data are split (Field, 2009). Cronbach's (1951) coefficient alpha tries to address this problem by calculating the correlation coefficient in every possible split and obtaining average estimates (Field, 2009). Cronbach's alpha is one of the most reliable and applied techniques

to calculate the internal consistency of measures (Field, 2009). Hence, this study examines the reliability of measures using this technique.

Generally, measures with Cronbach's alpha value of over 0.7 and 0.8 are considered reliable and those with significantly lower values are regarded unreliable (Field, 2009). Sekaran (2006) stated that reliability is considered poor if Cronbach's alpha is lower than 0.6, acceptable if it is above 0.7 and good for those above 0.8. However, it should be noted that there are different views on reliability of measures with very high alpha values. For example, whilst Sekaran (2000) considers alpha value over 0.8 as a good level of reliability, DeVellis (1991) argues that alpha value over 0.9 suggests a very high inter-correlation between measures and such measures should be dropped. In this study, a minimum of 0.7 criterion is used to accept the validity of internal consistency among the scales.

4-9-2 Confirmatory factor analysis

Confirmatory factor analysis (CFA) examines the relationships between measured variables and the identified subset of factors (Spicer, 2004). It should be noted that confirmatory factor analysis is theory driven and the relationship between dimensions and factors are hypothesized before conducting the statistical analysis (Gerbing & Anderson, 1988). Therefore, when the researchers conduct the CFA, they are comparing the hypothesised models' estimate of a population covariance matrix with the observed covariance matrix (Schreiber et al., 2006) to verify the existence of proposed relationships or dimensions.

4-9-3 Why choose Structural Equation Modelling (SEM)?

Structural equation modeling has received a wide application in marketing science and social research in recent years. As Babin et al. (2008) pointed out, prior to the 1990s, fewer than ten articles were being published each year using SEM, whereas in years between 1995-2007 more than two thirds of the published articles applied SEM in their analysis.

Bagozzi and Fornell (1982) recognised structural equation modeling (SEM) as the second generation multivariate data analysis techniques. SEM is capable of conducting a combination of exploratory factor analysis (EFA), confirmatory factor analysis (CFA) and multiple regressions (Ullman, 2001). Therefore, SEM allows questions to be answered when EFA is combined with multiple regression analysis (Tabachnick & Fidell, 2001). However, it should be noted that although SEM is capable of doing EFA, it is considered as a CFA and multiple regressions technique (Schreiber et al., 2006). The applications and advantages of SEM techniques are explained below:

The simplest application of SEM is to evaluate the existence of any relationship between observed measured variables. For example, in situations that the researcher posits a relationship between one observed variable and other observed variables, SEM is used to confirm such relationships (Tabachnick & Fidell, 2001). Furthermore, SEM can be used to verify and confirm the identified dimensions explored by exploratory factor analysis (Floyd and Widaman, 1995), to examine the uni-dimensionality of scales (Gerbing and Anderson, 1988), to conduct path analysis and to develop path diagrams (Tabachnick & Fidell, 2001). SEM is chosen over regression models as it allows the researcher to work with reflective variables, i.e. observed variable and latent variables. Furthermore, in path analysis it is capable of analysing relationships for multiple variables where more than two variables are linked in a sequence of relationships. In addition, SEM enables the researcher to answer interrelated research questions “in a single, systematic and comprehensive analysis by modelling the relationships” between dependant and independent constructs simultaneously (Gefen, 2000, p.3). Therefore, SEM techniques are more preferable in this study.

4-9-4 Why Partial Least Square (PLS)?

Hair et al. (2011) explained that when it comes to analysing causal relationships between latent variables in marketing research, structural equation modelling is regarded as a “quasi-standard” method. Conventionally, two approaches have been employed for SEM analysis, namely covariance based (CB-SEM) and partial least square (PLS-SEM) (Hair et al., 2012c; Hwang et al., 2010). However, it should be noted that there are more than two approaches. Wong (2013) for example identified four approaches, namely: Covariance based (CB-SEM), Partial least square (PLS-SEM), component based SEM also known as Generalized Structured Component Analysis (GSCA-SEM) and Nonlinear Universal Structural Relational Modelling (NEUSREL). This section compares the advantages and disadvantages of CB-SEM and PLS-SEM and justifies the use of PLS-SEM approach in this research. Two other approaches are suggested to not to be suitable for the purpose of this study because they are both relatively new approaches and there is not enough literature to support these methods (Wong, 2013). Furthermore, there are limitations in conducting mediation analysis and for generalized structured component analysis and the estimates from this method have been found to be inconsistent in some instances (GSCA-SEM) (Henseler, 2012).

While the covariance based (CB) approaches to SEM is well applied by many marketing and management researchers, the other useful approach, partial least square (PLS), is not as known (Hair et al., 2011). However, partial least square structural equation modelling is increasingly being used in numerous fields such as marketing, strategic management and information systems (Ringle et al., 2012; Hair et al., 2012b; 2012c). The growing prevalence of PLS-SEM analysis can be attributed to the advantages it offers such as: smaller sample size requirement, ability to analyse non-normal data and allowing the use of formatively measured latent variable (Ringle et al., 2012). Yet, it should be noted that CB-SEM and PLS-SEM are considered as complimentary rather than competing techniques (Hair et al., 2012c). While covariance based

approaches focus on the theoretical relationships in the model and aim to minimize the difference between the model's implied covariance matrix and collected sample covariance, the partial least square approach is a predictive variance based approach purposed to maximize the explained variance of a targeted endogenous variable (i.e. their R^2 value) (Hair et al., 2012c). Therefore, before choosing the appropriate approach the advantages and limitations of each technique are explained.

CB-SEM method has been widely applied in marketing research studies during the past several years. It is the preferred method for confirming or rejecting the hypothetical relationships when the sample size is large, data is normally distributed and the relationships are clearly determined (Wong, 2013). Therefore, before conducting the analysis in CB-SEM the following conditions should be met:

- The data should be normally distributed.
- Sample size should be large.
- The model should be correctly specified.

(Wong, 2013; Hair et al., 2011; Hwang et al., 2010)

These required conditions can limit the use of this approach because in reality, it is very difficult to collect data sets that fulfil all these conditions (Wold, 1982; Wong, 2013). In addition, for exploratory research, very little is known about the possible relationships a priori, thus, this approach is limited (Wong, 2013).

One of the restrictions of traditional SEM techniques that PLS overcomes is the dependency on normal distributions. Applying PLS allows the researcher to conduct analyses on data that are not normally distributed. It is important for this research because in previous studies, it has been shown data collected with Likert questionnaires are not normally distributed and can be

skewed to the higher or lower range (Clason and Dormodly, 1994; Malthouse, 2001). Therefore using PLS enables data analysis for samples with non-normal distributions.

Unlike the CB-SEM methods that require the theoretical model to be determined specifically because they use a set of model parameter to minimize the difference between the theoretical covariance matrix and estimated covariance matrix (unable to predict the relationships), PLS-SEM techniques have more prediction powers (Hair et al., 2011). As explained by Ringle et al. (2010), one of the main advantages of PLS-SEM techniques is its explanation and prediction ability over endogenous variables (calculating the loadings and coefficient determination of R^2 values). Similarly, Hair et al. (2011) explained that if the nature of the research is confirmatory and theory testing then CB-SEM methods should be applied, but if the nature of the research is predictive and focused on theory development then the PLS-SEM methods are more appropriate.

One of the disadvantages of CB-SEM techniques is the required large sample size. In situations with small sample size, PLS-SEM methods can help researchers to arrive at reliable results (Chin, 2010). In these situations (small sample size), CB-SEM has several weaknesses including a lack of robustness (Boomsma & Hoogland, 2001; Sarstedt et al., 2014). However, PLS-SEM's inherent robustness and higher statistical power can be helpful in generating accurate results (Reinartz et al., 2009). The above-cited advantage of PLS-SEM techniques has been a source of controversy among different scholars. In a study conducted by Goodhue et al. (2006) it was suggested that PLS-SEM techniques have no statistical advantage over CB-SEM techniques when sample size is small. Sarstedt et al. (2014) and Hair et al. (2011) argued that some problems mentioned in the Goodhue et al. (2006) are not uniquely related to PLS-SEM (i.e. appropriate sampling method). They also suggested that researchers should try to collect relatively large samples to mimic CB-SEM although when the sample is small, the PLS-SEM offers better results.

With the increasing interest in application of formative variables in various fields such as strategy, management information systems and marketing (Hair et al., 2012c) the handling of such variables is becoming an essential issue. PLS-SEM techniques are the preferred methods for dealing with formative variables in comparison to CB-SEM. Chin (2010) explains that in CB-SEM analysis, the latent variables are considered reflective by default. He further explained that this assumption could lead to problems when researchers inadvertently use formative variables in their models without making necessary adjustments. Although CB-SEM is capable of handling formative variables with some modifications, it requires restrictions on the model that could contrast with theoretical considerations (Bollen and Davies, 2009). In PLS-SEM analysis however, the handling of formative variables is less problematic, because the outer weights are estimated (from the construct scores) (Chin, 2010). Formative variables are represented by a single headed arrows pointing inwards to latent variables from indicator variables and PLS-SEM estimates the coefficient for the formative relationship which is called 'outer loading' (Hair et al., 2011).

Although PLS-SEM offers some advantages over the CB-SEM approach, there are some restrictions in using this type of analysis. For example, Hair et al. (2011) implied that PLS-SEM lacks an adequate global measure to examine a model's goodness-of-fit and Wong, (2013) identified five main limitations of PLS-SEM methods as follows:

- When sample size is small, high value structural path coefficient is required.
- Multicollinearity can be problematic if not handled well.
- Undirected correlations cannot be modelled because the arrows are single-headed.
- The component estimation, loadings and path coefficients may become biased as a result of lack of potential lack of complete consistency in latent variable measures.
- There is a probability of creating large mean square errors in calculating the path coefficient loading.

Although there is no rigid rule for selecting between CB-SEM and PLS-SEM, Hair et al. (2011) developed the rule of thumb for choosing each analysis method in different conditions which can be found in table 4-4.

PLS-SEM	CB-SEM
Purpose of the research	
To identify and predict key target and driver constructs.	To conduct theory testing or theory confirmation or comparing alternative theories.
When the research is exploratory or extension of an existing structural theory.	
Measurement Model specification	
If structural model includes formative variables.	When error terms need more clarification i.e. covariation.
Structural model	
When there are many constructs and indicators and the model is complex	When the model is non-recursive.
Data characteristics and algorithm	
If your data doesn't meet the assumptions for CB-SEM.	If the data meets the condition of CB-SEM (i.e. normality of the data).
If the sample size is relatively low.	If collected data are normal.
If collected data are relatively 'non-normal'	If pre-requirements such as
When CB-SEM pre-requirements about model specification, identification, non-convergence and data distribution cannot be met.	
Model evaluation	
If the latent variable scores are required for subsequent analysis.	When the research needs a global goodness of fit.
	If it is required to test for invariance of measurement model.

Table 4-4 Comparing CB-SEM and PLS-SEM (Hair et al., 2011)

It is noteworthy that the application of PLS-SEM approach in empirical researches has been contested by some researchers, while some raised concerns about the situations and conditions in which PLS-SEM approach can be applied (e.g. Evermann and Tate, 2010), others (e.g. Hwang et al., 2010) totally deny the usefulness of PLS-SEM (Hair et al., 2012c). However,

Hair et al. (2012c) responded to arguments on the reliability of using PLS-SEM models in social sciences based on the following reasoning.

Firstly, social science research is often characterised by new theoretical developments and analysis of limited collected samples. The rigorous requirements of CB-SEM are very difficult, if not impossible, to meet in these situations. Limitations in data quality and theory, may erroneously influence our understanding of the phenomena as a result of having unrealistic expectations from the researchers (Sutton and Staw, 1995) and also perpetuating practices that can be affected by Type II errors when applied techniques lack the statistical power to identify significant effects (Sosik et al., 2009).

Secondly, with the increasing interest in formative variables in various areas of research such as marketing (Jarvis et al., 2003), managerial information systems (Cenfetelli & Bassellier, 2009) and organizational behaviour (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) the application of PLS-SEM becomes even more appealing.

In this study, PLS-SEM analysis is applied because; firstly, the normality of the collected data may be in question since Likert scales were used to collect data. It should be noted that while many studies find normal distributions using these scales, it is possible that the data distributions are skewed to the upper or lower range and therefore violate the normality assumptions of CB-SEM. Secondly; PLS-SEM is suggested to be more appropriate with lower sample sizes (Hair et al., 2011). Thirdly, there are many constructs in the model and the model is considered complex, thus PLS-SEM analysis is chosen in line with suggestions by Hair et al. (2011).

4-9-5 Validity

Validity of the measurement instrument or the questionnaire's internal validity addresses concerns regarding whether the questionnaire actually measures what it is designed to and how well it captures what it is supposed to (Saunders et al., 2012; Burns and Bush, 2002). While reliability estimates the internal consistency of the measures and assesses whether measures for a construct reflect only that construct, validity is concerned with the accuracy of measuring the intended latent construct (Churchill, 1979; Netemeyer, 2003). Normally, validity of questionnaires are confirmed through their Content validity, Construct validity and Criterion related validity (Cooper and Schindler, 2008).

4-9-5-1 Construct validity

The accuracy in identifying, defining and understanding independent and dependent variables is imperative for conducting any analysis of possible relationships between variables (Hair et al., 2003). The construct validity is the extent to which variables under investigation are accurately identified and defined (Hair et al., 2003). In order to study the construct validity of a research, six components of 'reliability', 'convergent validity', 'discriminant validity' and 'nomological validity' 'Face validity' and 'Criterion validity' are estimated (Peter, 1981; Netemeyer, 2003). In the following sub-sections, each component is explained.

4-9-5-2 Content Validity

Content validity (also known as face validity (Hair et al., 2003)) is the ability of developed measures (in this study the questionnaire) to cover the intended research questions, and checks whether the questions in the scale are 'necessary', 'useful but not necessary' or 'unnecessary' (Saunders et al., 2012). It estimates the accuracy in choosing scales to measure the required latent constructs (Haynes et al., 1995). The judgement of proper coverage is generally evaluated either by reviewing the literature and using previously developed measures, or developed based

on expert opinion or a panel to examine the content validity of the questionnaires (Saunders et al., 2012). In this thesis, the constructs, scales and measures are adopted from previous studies; therefore, the content validity is acceptable. Furthermore, after developing the questionnaire, a panel of experts (comprising of the researcher and supervisors) evaluated the questions for each construct to ensure the adequateness of the content validity. This evaluation of content agreement is in line with Cooper and Schindler's (2008) article where they considered content validity as a subjective agreement among professionals to examine whether the scales are truly representative of the constructs they are purported to measure.

4-9-5-3 Convergent validity

Convergent validity is the degree to which the measurements of a construct statistically correlate with other measurements of the same construct (Hair et al., 2003). It is the interconnectedness and correlation among the diverse variables that measure the same construct (Peter et al., 1993). In order to test the convergent validity of a construct, it is necessary to ensure that scales measuring the same construct load together in the factor analysis (Peter et al., 1993). Hence, in this study, convergent validity is assessed in two ways; firstly, each item should load significantly on the latent variable. Secondly, the standardised loading for each item should be over 0.5 (Hair et al., 2010).

4-9-5-4 Discriminant validity

In this thesis, the discriminant validity is also calculated in addition to convergent validity to confirm the validity of latent variables. Peter (1981) explains that this form of validity is focused on demonstrating that the items for each distinct variables do not correlate highly with one another. Hair et al. (2010, p.710) defines discriminant validity as "the extent to which a construct is truly distinct from other constructs". To examine the discriminant validity of the variables, three approaches were adopted.

Firstly, the validity is examined based on Fornell and Larcker's (1981) wherein the AVE (average variance extracted) for each latent variable is compared with the shared variance between constructs. Based on this technique, Fornell and Larcker (1981) suggested that the AVE for any two construct of A and B should be larger than their shared variance. However, Hair et al. (2010) shows that when using this method, the validity is confirmed if the variance extracted estimates are greater than the squared correlation estimate. Using this technique to evaluate discriminant validity is supported by studies such as Farrell and Rudd (2009), in which they identified this technique as the best possible approach for a stringent evaluation of validity in studies with limited data.

Secondly, the discriminant validity is assessed through cross-loading test as suggested by Hair et al. (2014). In this technique, observed variables loadings for each construct should be greater than their cross-loadings (Chin, 2010; Hensler et al., 2015). Anderson et al. (2004) elaborated that each indicator loading should be greater than all of its cross-loading by a minimum gap of 0.2.

Thirdly, the discriminant validity is analysed by calculating the Heterotrait- Monotrait Ratio (HTMT) developed by Hensler et al. (2015). They explained that to establish discriminant validity, obtained HTMT values should be below 0.9. This method, which is based on the multitrait-multimethod matrix, is adopted because Hensler et al. (2015) showed that in situations where Fornell-Larcker and cross-loading would fail, this method remains robust.

In this research, these three techniques are used to examine the discriminant validity for required constructs. However, it should be noted that convergent validity and discriminant validity tests are only valid if the reliability of data are confirmed. Otherwise, the scales and measures are not trustworthy and the results of the tests are not acceptable.

4-10 Conclusion

In this section, the applied methodology for this research was justified. The purpose of the research was clarified, and based on the research requirements and constraints, a research design was developed. The section on research design started by identifying the research questions, taking the best research approach (i.e. positivism or interpretivism) and then developing research tools. It should be noted that although Hair et al. (2003) suggests that pilot surveys are useful for purifying the scales, it is argued that this is primarily a requirement for newly developed measures. Because the measures developed in this study are adopted from previous literature, the need for purifying the scales does not apply to this study. After choosing the right research questions approach and techniques, it was explained that how reliability and validity of the constructs will be analysed and the appropriateness of the research tools will be examined. Finally, the reasons for selecting SEM analysis and the methods to examine the validity of the constructs were clarified. The next chapter reports the actual analysis and results of this study. This thesis continues with analysing the collected data and conducting the path analysis for the developed model.

CHAPTER 5 - DATA ANALYSIS AND FINDINGS

5-1 Introduction

In the previous chapter, the research approach and the methodology adopted in this study were explained. The focus of this chapter is to evaluate the adopted scales and the relationships among the dependent and independent variables as well as details on the data analysis. Accordingly, this chapter describes the steps for the scale evaluations and path analysis conducted using SPSS v. 20 and Smartpls 3. This chapter comprises of the following sections: Introduction; descriptive statistics; missing data, outliers, response bias and duplications; parametric and normality test; SEM and Smartpls; conclusion.

5-2 Descriptive statistics

The data collected was imputed in SPSS v. 20 and was subsequently examined graphically (box plots and histograms) and statistically (i.e. distribution and mean). The purpose of screening the data was to identify possible outliers, data entry errors, and to get an early sense of possible patterns and frequency distributions.

5-2-1 Age

Tables 5-1 to 5-3 show the important descriptive statistics of the data sample. As outlined, the majority of respondents fell in the age group of 18-25 (73%) years old, followed by age groups of 26-30 (15.8%), 31-35 (9%) and above 36 (2%) respectively. This implies that most of the respondents fell in the youngest age group, which is an expected outcome as the research targeted only students in UK universities. Furthermore, while older age groups like 36-40, 41-45, 45-50 and 50+ were accounted for and captured, they were subsequently categorized as 36+ for clarity and because of the marginal number of respondents in these age categories.

<i>Age</i>	<i>Frequency</i>	<i>Percentage</i>
<i>18-25</i>	228	73
<i>26-30</i>	49	15.8
<i>31-35</i>	28	9
<i>36+</i>	6	2
<i>Total</i>	311	100

Table 5-1 Age

5-2-2 Gender

Out of 311 respondents, 136 respondents were male forming 43.7% of sample size. 171 were female and constituted about 55% of sample size. Four (4) respondents did not specify their gender (1.3%).

<i>Gender</i>	<i>Frequency</i>	<i>Percentage</i>
<i>Male</i>	136	43.7
<i>Female</i>	171	55.0
<i>Unspecified</i>	4	1.3
<i>Total</i>	311	100

Table 5-2 Gender

5-2-3 Registration with Brands

Two brands (referred to here as A and B) were chosen for this study. These two brands are comparable in the following regards:

- They are both extended brands of two independent firms offering exactly similar services.

- The purpose of both brands is to deliver benefits for customers' of the telecommunication brand by providing them with useful information, discount offers, and vouchers.
- Both brands use text message advertising as a communication channel.
- They both have websites and their own mobile applications.

As shown in Table 5-3 majority of the respondents were registered with brand A with approximately 158 respondents or 50.8% while brand B's share was about 153 (49.2%) of all survey respondents.

<i>Brand customers</i>	<i>Frequency</i>	<i>Percentage</i>
<i>First Brand (A)</i>	158	50.8
<i>Second Brand (B)</i>	153	49.2
<i>Total</i>	311	100

Table 5-3 Subscription with Brands

5-3 Missing data, Outliers, Response bias and Duplications

The purpose of this section is to evaluate the data collected for its appropriateness for use in the study's proposed regression analyses. Before conducting the analysis, variables that were measured using reverse worded questions (worded opposite the real intended meaning of the construct i.e. it is unlikely that I use XX again when the purpose of the question is to measure the brand loyalty) were recoded into the real values using SPSS.

After recoding the responses for the reverse worded questions, the data was evaluated for missing variables and outliers in the data set. The collected data was also evaluated for possible response biases and duplicates. Furthermore, since two methods of data collection were used (surveys in the classrooms and face to face surveys), the Mann-Whitney U test is conducted to identify any possible significant differences between the two sample groups.

5-3-1 Parametric and normality test for the sample data

It is important to test the normality of the data collected before conducting any regression or SEM analysis. A normality test is important because if the assumption of normality is violated, then the outputs of the analysis (such as F test) are invalid (Hair et al., 2006). Therefore, in such situations, alternative techniques that do not necessarily require parametric (normal) data should be employed (Henseler et al., 2009).

Three approaches were used to examine the normality of the data. First, the data were examined using histogram plots, however, since the interpretation of histograms can be subjective and varied, two additional statistical tests were executed. Field (2009) suggested that Kolmogorov-Smirnov and Shapiro-wilk could be used to statistically examine normality by comparing the collected data to datasets generated under conditions of normal distribution. A significance level of $p > 0.05$ is required to confirm that the data follows a normal distribution using these approaches (Field, 2009). After examining the data using these two statistical test, it was found that the collected data was not normally distributed. Appendix II shows the results of the normality test. However, it should be noted that these tests are prone to result in significant diversions from normality distribution if the sample size is large (Field, 2009). Therefore, in addition to the first two tests, a third examination of data was also conducted.

In the third normality examination, the Kurtosis and Skewness of the data was assessed. Kline (2005) proposed that Kurtosis scores are acceptable when they are within ± 2 times of their standard errors, and Skewness is adequate when the values obtained fall within ± 1 times of their standard error. The test was conducted for all the constructs measuring brand equity dimensions, SMS advertising attitude and SMS characteristics. The results show possible normality concerns in some of the constructs as indicated in Appendix III.

In questionnaire surveys that use Likert scales, it is likely to find that the responses might be more inclined to the upper or lower boundaries of the scales, which affects normality tests and results in a significant difference from normal distribution (Malthouse, 2001). Another reason for the non-normal distribution observed could be that the sample size was rather large hence statistical testing is likely to find significant deviations from a normal distribution where in actual fact, a small deviation exists (Field, 2009).

Accordingly, alternative methods of structural equation modeling for non-parametric data was applied. As explained, the partial least squares (using Smartpls 3) approach was adopted for the SEM analysis because a normal parametric distribution is not a pre-requisite for using such techniques.

In this section, the normality of the sample data was examined through three different methodologies, firstly by observing the distribution of the data, secondly two statistical tests (Kolmogorov-Smirnov and Shapiro-wilk) was performed and finally Kurtosis and Skewness statistical test was used to confirm the results. It was found that the data does not follow a normal distribution and therefore alternative approaches (PLS approaches using Smartpls3) should be adopted. The choice of Partial Least Squares using Smartpls 3 is justified as the normality of the data is not essential for this approach.

5-3-2 Missing Values

Missing and incomplete data can bias the data analysis and interfere with the overall findings (Hair et al., 2010). Hence, before conducting confirmatory factor analysis (CFA), it is necessary to check for missing data. Data screening and missing data analysis started soon after the data collection phase was completed. Out of the 348 collected questionnaires, 37 questionnaires were discarded due to many unanswered questions or biased responses (i.e. consumer chose neutral (4) for all of the questions). After removing the incomplete and

misleading data (37), the remaining 311 questionnaires were screened for missing values and possible bias in late-responses. The missing values for the remainder of 311 questionnaires were in the reasonable range (less than 10% of the questions were left unanswered). Appendix (I) shows the number of unanswered questions and the percentile against the whole dataset.

After reviewing the missing values, it was found that the scale measuring SMS ‘obtrusiveness’ (IRR6) had the highest number of missing values (15 out of 311) which was about 4.8% of the overall responses for IRR6. This is followed by ‘PRM1’ (measuring importance of permission) and (CNTRL1) (measuring consumer control) with 7 (2.3%) and 6 (1.9%) missing values respectively. These levels are well below Roth and Switzer’s (1995), 10% validity cut-off and slightly below Tabachnick and Fidell’s (2001) 5% benchmark. Therefore, it is possible to assume that the missing values in the survey fell in the reasonable range and could be statistically handled.

Since the total missing values were under 5% and the most missing values were related to ‘IRR6’ with 4.8% , which also had other observed variables (i.e. IRR1- IRR5), EM (expectation maximisation) algorithm was applied to input the missing values. It is suggested that using EM algorithms is more acceptable than ad hoc missing value analysis such as replacing missing value with the mean, likewise deletion techniques, or pairwise deletion (Pigott, 2001).

5-3-3 Outliers

Outliers in datasets also need to be identified and dealt with before conducting SEM analysis. The outliers are the extreme values in a dataset. Hair et al. (2006) explained that the existence of extreme values could negatively influence SEM analysis, and subsequently affect the findings. These extreme values can be a result of errors in entering questionnaire data or unusual high/low responses in comparison to the rest of the data (Tabachnick & Fidell, 2001).

Hair et al. (2006) explained that for large sample sizes (over 80), scores higher than ± 3.0 are considered outliers.

In this research, the outliers were determined using SPSS software with univariate detection techniques, and few outliers were identified. Some of the outliers was a result of a data entry error, which was corrected by looking at the relevant questionnaire. Next, the whole questionnaire was checked to examine if the rest of the data was affected by data entry errors. After analysing the outliers, it was found that no patterns existed in the outliers and they could be considered random.

5-3-4 Mode of contact and consumers response bias

As mentioned earlier in the methodology chapter, two approaches were applied to collect the data from the students. In the first approach, the researcher attended the lectures and asked the volunteers to fill out the relevant survey and return the completed questionnaires to the interviewer. In the second case, the students were approached in person in the public areas within the universities. The application of various data collection methods may raise concerns about the influence of data collection methods on the consumers' responses.

In order to address this concern, it is suggested that while different modes of data collection (i.e. face to face interview) can have significant influence on the collected data (Holbrook et al., 2003), the methodologies applied in this research are very similar and the response bias is not expected for these data. The reasons behind this claim are firstly, the methodologies in collecting data are considered similar because in both cases, the data were self-administered. Secondly, it is argued that while significant difference in consumer responses exists when the modes are very different. However, in this research, the context of the surveys was considered similar because:

- In both methods, the survey was conducted inside the universities.
- A self-administered approach for collecting the data was applied in both cases.
- The volunteers in both cases were guaranteed to remain anonymous.

In order to statistically investigate the existence of any possible divergence between the two respondent groups and to check for response bias, significance testing of the mean differences was conducted for both groups. For parametric data and normally distributed responses, T-test is normally conducted (Field, 2009). However, because the sample data are not normally distributed in this study, the equivalent of a T-test for non-parametric sample is used. Accordingly, Mann-Whitney U test was conducted to compare the means for two different data sets. The significance level of 5% was chosen to validate/reject the null hypothesis. The result of the analysis showed that there was no significant difference between the observed variables.

5-3-5 Differences between responses for two brands.

The purpose of this section is to investigate whether any statistically significant difference exists between the data collected for brand A and brand B.

Using the SPSS data pack, the results of the test show that in most cases there is no significant difference between the observed variables for brands A and B. It is in line with the initial assumption that brands A and B are similar to an acceptable level. However, there were some discrepancies between some variables as illustrated in table 5-4, which resulted in the exclusion of those variables from the analysis.

Variables	Mann-Whitney U below 0.05
IRR 6	0.041
AW2	0.025

Table 5-4 Significantly different variables

Although those observed variables that gave a Mann-Whitney U value below 0.05 were dropped, there was no need to drop any latent variables as they still met the required minimum of three observed variable for each latent variable. In addition, because less than 5 percent of the variables are affected, the analysis and results should not be influenced significantly.

5-3-6 Duplications

Duplication can bias the collected data and undesirably influence research outcomes. To prevent this problem, two steps were taken for this thesis. First, to prevent respondents' duplication, verbal filtering was conducted, in which students were asked if they had already taken part in the survey. If they answered positively, they were disqualified from filling out a new questionnaire. Secondly, to prevent duplications of responses, collected data were analysed to check for any duplicates after entering process and no issue was found.

5-4 SEM using Smartpls

In this study, Partial Least Square (PLS) was applied to carry out the analysis. Haenlein and Kaplan (2004) explained that PLS is a second generation multivariate technique for data analysis. Furthermore, it is suggested that conducting Structural Equation Modelling (SEM) analysis using PLS techniques requires two main steps. First, the reliability and validity of the measures are examined and assessed for convergent and discriminant validity. Secondly, the path coefficients in the structural model are estimated and assessed to check for the relationship between different constructs (Hulland, 1999; Zainol et al., 2012).

5-4-1 Common method variance (CMV)

One of the issues in social research and behavioural studies concerns the variance in collected data resulting from the data collection methods, as opposed to a real variance that exists between two variables, particularly in self-reporting data (Podsakoff et al., 2003). There has been a great deal of controversy about the degree of common method bias/variance among

scholars. Richardson et al. (2009) identified three groups of scholars' views about common method bias. The first group denies any influence of common method bias on true relationships and believe that its' influence is over-exaggerated. The second and third group on the other hand, believe that common method variance exists. However, they have disagreements about its nature and its role in contaminating the data. The second group suggests that CMV has equal effect across constructs while the third group suggests that CMV has an unequal influence on various constructs.

Podsakoff et al. (2003) explained that CMV (the variance that exists as a result of measurement error which cannot be attributed to the constructs) is a key problem in behavioural science research and advised on some measures to be taken before data collection to minimise the effect of CMV. Furthermore, they proposed post-hoc statistics to examine whether the data are biased. In this research, prior to collecting data, the following steps were taken to reduce CMV as suggested by Podsakoff et al. (2003):

- The respondents were informed about the anonymity of their responses to assure them that the data will not be traced back individually and would only be used collectively. This process can reduce the bias that arises from the perceived need to answer in a socially desirable way.
- Furthermore, the measurement scales adopted from previous studies were checked for problems such as ambiguity, double barrel questions, or vague concepts.

While these actions were taken before collecting the data, the results were also statistically examined for possible CMV. Podsakoff et al's (2003) suggested the use of Harman's one factor test, which was conducted on SPSS to check for the existence of factors that account for majority of the construct's variance. The existence of such factors would be indicative of CMV in the data. The results showed that the strongest factor only accounted for 22.64 percent of the

variance, which is much less than threshold of 50 percent. Therefore, it is suggested that there is no CMV effect on the data.

Additionally, Mosteller et al. (2014) clarified that PLS analysis is prone to underestimate the relationships between two constructs (path-coefficient) (Dijkstra, 1983), thus, the actual relationship between two constructs can be stronger than the reported values (Bagozzi et al., 1991). Therefore, it is likely that the demonstrated relationship are the results of actual variances between constructs rather than CMV. Hence, it is suggested that the proposed correlation coefficient values in this study are the results of actual variances between two variables with a good degree of confidence.

5-4-2 Measurement refinement and structural model

In order to perform structural equation modelling in this study, a two-step model building was performed. First, the measurement model was assessed. Since all the measurement scales were adopted from existing literature, the exploratory factor analysis was not conducted. Therefore, all the measurement scales were analysed to examine their reliability and validity for measuring each construct. In the second phase, the relationship among different constructs and hypotheses were tested using PLS path modelling software (Smartpls3).

5-4-3 Reliability

As explained in the methodology chapter, Cronbach's alpha was calculated to measure the internal reliability of each construct as suggested by Malhotra et al. (2007). In addition to Cronbach's alpha, the composite reliability (Dillon-Goldstein's rho) of the measures were also calculated as suggested by Vinzi et al. (2010). The reasons for performing composite reliability test in addition to Cronbach's alpha is because as explained by Chin (1998), in the former there is a so called tau-equivalence or (parallel). He further clarified that in tau-equivalence, it is assumed that all the variables manifesting the construct are equally important in defining that

constructs. However, in the composite reliability, this assumption is not made and the importance of each manifest variable to define the construct is based on the model and respective loadings. Chin (1998) also argued that Cronbach's alpha creates lower estimates of reliability. Therefore, in this study both estimates are measured to ensure that the results comply with the composite reliability as well as internal consistency (Cronbach's alpha).

It is important to mention that the threshold for Cronbach's alpha is 0.7 (Vinzi et al., 2010). Composite reliability, is also generally interpreted similar to Cronbach's alpha (Hair et al., 2014). So, Wertz et al. (1974) suggested that composite reliability values above 0.7 can be acceptable. Table 5-5 shows the reliability measures for the constructs.

Construct	Cronbach's alpha	Composite Reliability
ATUSA	0.880	0.918
Awareness	0.929	0.955
Brand Loyalty	0.851	0.903
Consumer Control	0.864	0.916
Incentives assessment	0.804	0.886
Irritateness	0.910	0.933
Informativeness	0.710	0.838
Permission	0.842	0.904
Trust	0.949	0.959
Value	0.830	0.898

Table 5-5 Reliability tests

As it is shown in the table 5-5, all the measures of reliability are above 0.7 for composite reliability and Cronbach's alpha. As shown, all the variables meet the required minimum of 0.7 for reliability. In the next section, the validity of the constructs will be evaluated.

5-4-4 Validity

After examining data reliability, the validity of the scales were also analysed. The data is statistically tested for convergent and discriminant validity before conducting the path model. Hair et al. (2014) explained that Convergent validity refers to the extent that variables measuring the same construct correlate positively with each other. They further clarified that the items that measure similar constructs should be highly correlated with each other and share a high proportion of variance. In order to examine the convergent validity of the data, two statistical measures are. Hair et al. (2014) proposed that standardised outer loadings should be above 0.708 and AVE should be above 0.5. However, as in social sciences, outer loading above 0.708 is hard to achieve and items with loadings between 0.4 and 0.7 should only be eliminated if they increase the reliability of the construct above its threshold (Hair et al., 2014). They further explaining that removing all the variables below 0.7 can negatively affect the content validity of the construct. Therefore, only the variables with very low outer loadings should be dropped (lower than 0.4).

5-4-4-1 Convergent Validity

To evaluate convergent validity, firstly the factor loadings should be compared. Using PLS-algorithm in Smartpls 3, the outer factor loadings are extracted. In the following table, each construct and their associated loadings are presented.

Table 5-6 shows the outer loading for consumer control, incentives assessment, informativeness, irritativeness, and permission importance.

	Consumer Control	Incentives assessment	Informativeness	Irritateness	Permission importance
CNTRL1	0.901				
CNTRL2	0.862				
CNTRL3	0.893				
INC1		0.787			
INC2		0.935			
INC3		0.820			
INF1			0.795		
INF2			0.845		
INF3			0.745		
IRR1				0.819	
IRR2				0.903	
IRR3				0.883	
IRR4				0.909	
IRR5				0.773	
PRM1					0.852
PRM2					0.907
PRM3					0.852

Table 5-6 Message characteristics outer loadings

As it is shown in the table 5-6, all the loadings are above the minimum required level of 0.7.

It should be noted that values below 0.7 and above 0.4 would only be removed if they increase the composite reliability, or Cronbach's alpha, or AVE above their threshold. This is because removing variables with loading below 0.7 can negatively influence the content validity (Hair et al., 2014). As all the measures are above the minimum, all items were retained. A similar approach is taken to measure outer loadings for ATUSA (attitude toward using SMS advertising), Brand awareness, brand loyalty, brand trust and brand value.

	ATUSA	Brand Awareness	Brand Loyalty	Brand Trust	Brand Value
ATUSA1	0.906				
ATUSA2	0.833				
ATUSA3	0.876				
ATUSA4	0.815				
AW1		0.931			
AW3		0.945			
AW4		0.932			
BL1			0.759		
BL2r			0.298		
BL3			0.828		
BL4			0.850		
BL5			0.783		
BL6			0.927		
BL7			0.757		
BL8			0.841		
Trust1				0.875	
Trust2				0.899	
Trust3				0.944	
Trust4				0.928	
Trust5				0.911	
Trust6				0.793	
VA1					0.848
VA2					0.862
VA3					0.880

Table 5-7 Outer loadings for mobile advertising constructs (excluding privacy)

Table 5-7 shows the outer loading for attitude toward using SMS advertising and online brand equity dimensions. As it is demonstrated, the values for Brand awareness, brand trust and value are all above 0.7. In loyalty, one value fell below 0.7 (BL2r) and was subsequently dropped.

After analysing the outer-loading for each construct, the average variance extracted for each variable was assessed. One common method to measure convergent validity is by testing average variance extracted (AVE) as proposed by Fornell and Lacker (1981). AVE is defined as the “Grand mean value of the squared loadings of the indicators associated with construct” (Hair et al., 2014 p.103). They explained that AVE is considered as the communality of the

constructs and shows the amount of variance in the indicators that is explained by the construct, i.e. measures more than 0.5 show that majority of the variance in the indicators are explained and therefore it is regarded as a good threshold for AVE.

Table 5-8 shows the AVE for all the constructs and shows that the minimum of 0.5 is met by all the constructs in the study.

Construct	AVE	Construct	AVE
ATUSA	0.736	Informativeness	0.633
Awareness	0.876	Irritableness	0.738
Brand Loyalty	0.679	Permission	0.758
Control	0.784	Trust	0.797
Incentives assessment	0.722	Value	0.746

Table 5-8 Average variance extracted (AVE)

5-4-4-2 Discriminant validity

After determining the convergent validity for all the constructs, the next step is to examine the discriminant validity of the constructs. Hair et al. (2014) proposed two techniques to test the discriminant validity, namely ‘cross loading’ and ‘Fornell-Larcker criterion’. They further clarified that cross loading measures the correlation between the indicator value and the construct. Furthermore, they suggested that outer loading for items measuring one construct should be greater than the correlation with other constructs (cross-loading). In addition to cross-loading test, Hair et al. (2014) also proposed Fornell-Larcker, which is a more conservative approach for estimating if the items measuring one construct share more variance with that specific construct rather than other latent variables. In this study, both discriminant validity methods are applied. However, as some cross-loadings had values higher than 0.4, a third approach (Heterotrait-Monotrait Ratio) was also applied to evaluate discriminant validity and avoid any possible multicollinearity effects. This final approach is suggested to be superior to previous methods when it comes to structural equation modelling (Hensler et al., 2015)

Two criteria were used to examine the cross-loading discriminant validity. First, primary target loadings (factor loadings for the items measuring the target construct) should be higher than other components. Secondly, loading for items measuring the primary component should be at least 0.2 higher than other factors (Anderson et al., 2004). The Cross-loading table can be found in Appendix IV.

The cross-loading results show that the items have an acceptable discriminant validity because they meet both criteria. For example, in case of brand value, the items (VA1, VA2, and VA3) load highest for this construct (fulfilling first condition). Furthermore, although value items (VA1, VA2, and VA3) loading are also high for (higher than 0.5) trust components, there is a gap of minimum 0.2 with the primary construct that confirms the discriminant validity of the model. Please see table 5-9.

	Trust	Value	Gap between loadings
VA1	0.549	0.848	0.299
VA2	0.513	0.863	0.350
VA3	0.618	0.88	0.262

Table 5-9 Discriminant validity gap between loadings

After the data was examined using cross-loadings, the Fornell-Larcker analysis was conducted to evaluate the distinctiveness of the constructs from each other. Table 5-10 below shows the result of the Fornell-Larcker. In the table, the squared root of AVE for each construct is calculated and presented as the diagonal elements (in red) and the cross loadings between two constructs are presented in the table. As shown, all the squared root of AVE are greater than the correlations with other constructs. Therefore, it is concluded that all the constructs are distinctive and unique. Hence, the discriminant validity of the constructs is confirmed.

	ATUSA	AWARENESS	BRAND LOYALTY	CONTROL	INCENTIVES ASSESSMENT	INFORMATIVENESS	IRRITATIVENESS	PERMISSION IMPORTANCE	TRUST	VALUE
ATUSA	0.858									
AWARENESS	0.288	0.936								
BRAND LOYALTY	0.311	0.323	0.824							
CONTROL	0.413	0.150	0.310	0.886						
INCENTIVES ASSESSMENT	0.584	0.145	0.558	0.380	0.850					
INFORMATIVENESS	0.624	0.091	0.254	0.511	0.587	0.796				
IRRITATIVENESS	-0.484	-0.041	-0.241	-0.326	-0.452	-0.51	0.859			
PERMISSION IMPORTANCE	-0.135	0.031	0.121	0.061	0.143	-0.071	0.084	0.870		
TRUST	0.363	0.433	0.568	0.186	0.262	0.243	-0.101	0.104	0.893	
VALUE	0.334	0.356	0.637	0.340	0.326	0.228	-0.06	0.207	0.650	0.864

Table 5-10 Fornell-Larcker test

The third approach to evaluate the discriminant validity is by calculating the Heterotrait-Monotrait Ratio (HTMT) developed by Hensler et al. (2015). This method is selected because it performs well in situations that traditional measures such as Fornell-Larcker and cross-loadings fail to identify discriminant validity issues (Hensler et al., 2015). The acceptable threshold of HTMT in this study is 0.90 in line with Hensler et al. (2015). This means that when HTMT value is below 0.90, discriminant validity is established between two constructs. Table 5-11 shows the results for the proposed model:

	ATUSA	Awareness	Brand Loyalty	Control	Incentives assessment	Informativeness	Irritiveness	Permission Importance	Trust	Value
ATUSA										
Awareness	0.319									
Brand Loyalty	0.346	0.345								
Control	0.466	0.174	0.352							
Incentives assessment	0.692	0.181	0.650	0.449						
Informativeness	0.785	0.114	0.317	0.646	0.779					
Irritiveness	0.541	0.058	0.271	0.362	0.528	0.636				
Permission Importance	0.154	0.063	0.138	0.099	0.177	0.099	0.106			
Trust	0.392	0.451	0.600	0.211	0.298	0.300	0.113	0.109		
Value	0.393	0.406	0.720	0.420	0.400	0.305	0.118	0.240	0.719	

Table 5-11 HTMT Discriminant validity

As all the HTMT values are below 0.90, it is concluded that discriminant validity is acceptable.

5-4-5 Structural model evaluation

After evaluating the appropriateness of measurement scales and constructs, the existence of possible relationships between latent constructs is investigated based on the conceptual model. As explained earlier, PLS approaches are adopted in this study mainly because the distribution of the data is not normal and it has been suggested that PLS methods are more powerful with smaller samples in comparison to CB-based approaches. To analyse the structural model, five steps are taken as suggested by Hair et al. (2014).

First, the exogenous latent variables are assessed to ensure that there are no collinearity issues. Secondly, the path coefficients are calculated based on PLS algorithms and the significance and relevance of the constructs are measured. Thirdly, the level of R^2 is measured and analysed. Fourthly, the effect sizes (f^2) are calculated and the implications are explained and finally the predictive relevance Q^2 and q^2 are presented.

5-4-5-1 Multi-collinearity assessment

Hair et al. (2014) proposed that, multi-collinearity refers to the extent that exogenous variables explaining one construct correlate with one another. It is possible to have a multi-collinearity problem if the data explaining endogenous variables is not accurately independent (Myers, 1990). Hence, before conducting any path analysis, it is essential to make sure that the independent variables measuring exogenous variable are not highly correlated. The variance inflation factor (VIF) is calculated for all the variables measuring attitude toward using SMS advertising (ATUSA), value, trust, and brand loyalty. These variables are chosen because based on the conceptual model they are endogenous variables with multiple independent variables. Table 5-12 shows the VIF values calculated using Smartpls 3. Myers (1990) suggested that any VIF greater than 10 to show the existence of multi-collinearity. Hair et al. (2014) proposed that the VIF below 5 are acceptable. As shown in table 5-12, all the VIF values for the model are

below 3 and therefore it is concluded that there is no multi-collinearity issue in the proposed model.

Independent variable	Dependent variable	VIF
ATUSA (Attitude toward using SMS advertising)		
Control	ATUSA	1.390
Incentives assessment	ATUSA	1.717
Informativeness	ATUSA	2.021
Irritateness	ATUSA	1.446
Permission Importance	ATUSA	1.085
Brand value		
Awareness	Brand value	1.021
Incentives assessment	Brand value	1.021
Brand trust		
ATUSA	Brand trust	1.169
Awareness	Brand trust	1.189
Value	Brand trust	1.228
Brand loyalty		
Incentives assessment	Brand loyalty	1.124
Trust	Brand loyalty	1.742
Value	Brand loyalty	1.815

Table 5-12 Multicollinearity test

5-4-5-2 Structural model evaluation

In the previous sections, the latent variables and observed variables were evaluated to determine the reliability and validity of the collected data. Furthermore, multi-collinearities among the independent variables were assessed to check the independence of each exogenous variable.

After addressing the possible limitations of the measurement scales, the next step is the analysis of the structural model. PLS-SEM algorithm is run in Smartpls 3 with 300 iterations to obtain the correlation coefficient. After measuring path coefficients, the bootstrapping procedure is conducted with 5000 sub-sample (suggested by Wong, 2013) to evaluate the significance of the relationships using standard errors.

5000 sub-sample and no sign change for bootstrapping is selected, because it is considered as a conservative outcome for calculating T statistics (Hair et al., 2014). Similarly, many scholars have recommended using a high number of sub-samples for bootstrapping with Gudergan et al. (2008), Hair et al. (2014) and Wong (2013) recommending about 5000 sub-samples for bootstrapping.

As demonstrated in table 5-13, all the proposed relationships are statistically valid. While the majority of the correlations are statistically significant at the 99% level of confidence ($p < 0.01$, $T > 2.58$), two relationships between attitude toward using SMS advertising (ATUSA) and irritativeness, and between ATUSA and consumer control are significant at 95% confidence level ($p < 0.05$, $T > 1.96$).

Independent variable	Dependent variable	Correlation coefficient (β)	T-value	Sig
ATUSA ($R^2=0.508$)				
Informativeness	ATUSA	0.297	5.33	***
Irritativensess	ATUSA	-0.137	2.08	**
Incentives assessments	ATUSA	0.332	5.39	***
Importance of permission	ATUSA	-0.156	2.96	***
Consumer Control	ATUSA	0.101	2.00	**
Brand Awareness ($R^2=0.083$)				
ATUSA	Brand Awareness	0.288	4.79	***
Brand Loyalty ($R^2=0.574$)				
Incentives assessments	Brand Loyalty	0.379	8.70	***
Brand trust	Brand Loyalty	0.233	3.85	***
Brand value	Brand Loyalty	0.362	5.43	***
Brand trust ($R^2=0.483$)				
ATUSA	Brand trust	0.124	2.80	***
Brand Awareness	Brand trust	0.206	4.26	***
Brand value	Brand trust	0.535	11.08	***
Brand value ($R^2=0.204$)				
Brand Awareness	Brand value	0.316	6.42	***
Incentives assessments	Brand value	0.280	4.43	***
Significance threshold levels: * Significance at $p < 0.10$ ($T=1.65$) ** Significance at $p < 0.05$ ($T=1.96$) *** Significance at $p < 0.01$ ($T= 2.58$)				
ATUSA= Attitude toward using SMS advertising			Sig = Significance	

Table 5-13 PLS-SEM analysis results

Additionally, table 5-13 shows the R-squared values for dependant variables, namely, ATUSA (0.508), brand awareness (0.083), brand value (0.204), brand loyalty (0.574) and brand trust (0.483). R-squared value measures the extent to which the variance in a dependant variable is explained by the related independent variables. Therefore, for attitude toward using SMS

advertising (ATUSA) for example, the independent variables explain 50.8% of the variance in the construct. Furthermore, the model explains 57.4%, 20.4%, 48.3% and 8.3% of the variance in brand loyalty, brand value, brand trust, and awareness respectively.

Hair et al. (2014) explained that there is no specific rule of thumb for the level of R-squared, and the criteria used should be based on the purpose of the study. For instance, when the purpose of the research is to predict a phenomenon, a higher level of R^2 (coefficient of determination) is required. As this research does not aim to predict variables (i.e. identifying the antecedents of brand awareness), but to evaluate the proposed relationships (i.e. the relationship between ATUSA and brand awareness), lower levels of R^2 are expected. However, R^2 results provide limited explanation regarding the power of the model when it comes to brand awareness. This can be attributed to other unexplained variables not included in the model (and are beyond the extent and objectives of this research) which also contribute to brand awareness. In addition, it shows that the findings are in line with Bart et al. (2014), who suggested that mobile advertising be used as a complimentary advertising medium and serves best as a reminder.

The results also show that attitude toward using SMS advertising and incentives assessments have statistically significant relationships with dimensions of online brand equity. This proposition is based on the outcome showing all the t-values for the proposed relationships to be above the significance level of 1.96. Figure 5-1 demonstrates the outcomes of the SEM analysis on the proposed model.

In the next section, the f^2 values are calculated to evaluate the effect size of the independent variables on dependant variables.

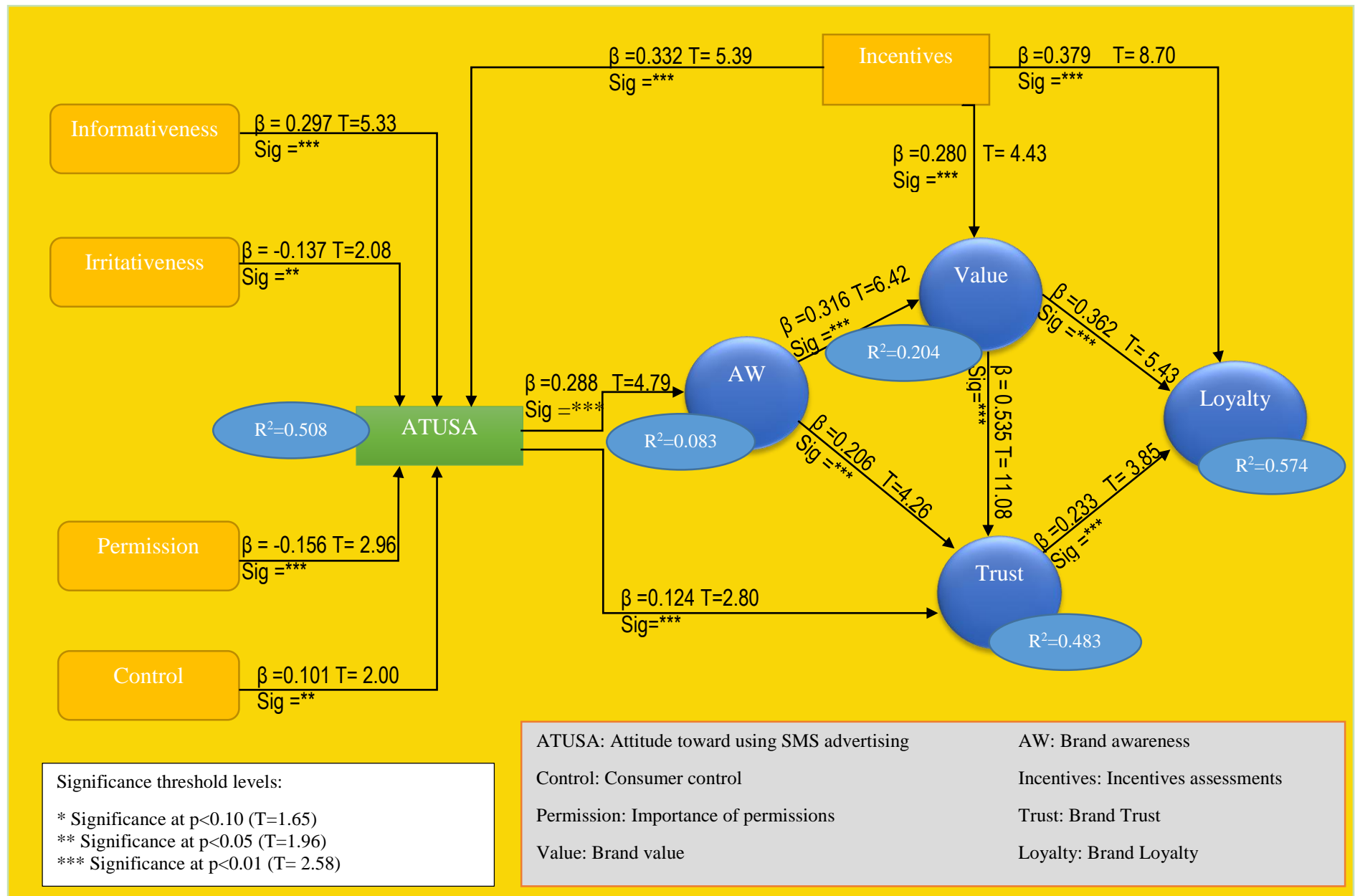


Figure 5-1 The research model

5-4-6 Effect size (f^2)

In addition to R^2 , Hair et al. (2014) suggested that researchers estimate the f^2 value to measure the size of the effect of one exogenous variable on the connected endogenous variable. Furthermore, they proposed that the f^2 value indicates if the exogenous variable has a substantive influence on the value of endogenous variable. Table 5-14 shows the value of f^2 for the proposed model. Although there is no rule of thumb for the values of f^2 (Hair et al., 2014), Cohen (1988) suggested that values of 0.02, 0.15 and 0.35 show small, medium and large effect size respectively.

As table 5-17 demonstrates, among the variables correlating with attitude toward using SMS advertising, consumer control showed a minimal effect on ATUSA ($f^2=0.015$) and is the value is less than the minimum cut-off of 0.02 proposed by Cohen (1988). However, incentives assessments, informativeness and permission have the strongest effects with effect sizes of 0.13, 0.089 and 0.046 respectively. The influence of irritativeness on attitude toward using SMS advertising is above the minimum of 0.02, so it is possible to conclude that it has a small effect.

Concerning the online brand equity dimensions, f^2 outcomes suggest that ATUSA explains 9% of the variation in brand awareness. Furthermore, incentives assessments, brand value and brand trust affect brand loyalty with f^2 values of 0.300, 0.169 and 0.073 respectively. Hence, according to Cohen (1988), incentives assessments and brand value have medium effects on brand loyalty, while the effect of Brand trust is considerably small.

Brand value has the highest effect on brand trust ($f^2=0.451$). This implies that brand value explains 45% of the variation in brand trust, which is a large effect size (above 35%). Brand awareness has a higher effect on brand trust ($f^2= 0.069$) compared to attitude toward using SMS advertising ($f^2=0.026$). However, both effects are classified as small. Finally, among variables

correlating with brand value, brand awareness has an effect size of 12.3% followed by incentives assessments with almost 10% explanation power.

<i>Construct</i>	<i>f²</i>
<i>Consumers Control → ATUSA</i>	0.015
<i>Incentives assessments → ATUSA</i>	0.130
<i>Informativeness → ATUSA</i>	0.089
<i>Irritateness → ATUSA</i>	0.026
<i>Permission → ATUSA</i>	0.046
<i>ATUSA → Brand Awareness</i>	0.090
<i>Incentives assessments → Brand Loyalty</i>	0.300
<i>Brand trust → Brand Loyalty</i>	0.073
<i>Brand value → Brand Loyalty</i>	0.169
<i>ATUSA → Brand trust</i>	0.026
<i>Brand awareness → Brand trust</i>	0.069
<i>Brand value → Brand trust</i>	0.451
<i>Brand awareness → Brand value</i>	0.123
<i>Incentives assessments → Brand value</i>	0.097

Table 5-14 Effect size

5-4-7 Blindfolding and predictive relevance Q^2

In predictive relevance calculation, some parts of the data matrix are removed and estimated based on the structural model. Q^2 above zero shows predictive relevance. Table 5-15 shows the data for the proposed structural model calculated using blindfolding in Smartpls 3.

<i>Construct</i>	<i>Q^2</i>
<i>ATUSA</i>	0.366
<i>Brand Awareness</i>	0.072
<i>Brand Loyalty</i>	0.387
<i>Brand trust</i>	0.373
<i>Brand value</i>	0.150

Table 5-15 Predictive relevance Q^2

The threshold for acceptability of Q^2 scores is zero, implying that as long as they show a value above zero, the model is acceptable (Hair et al., 2014). As shown in table 5-15, all the blindfolding outcomes are above the threshold. Therefore, the model passes the blindfolding test. In the next step, the relative predictive relevance is calculated.

After determining the predictive relevance of the model and demonstrating that the Q^2 values fall in the acceptable range, the predictive relevance of each variable (q^2) is calculated. This q^2 estimates how much of the endogenous variable is explained by the respective exogenous variable. In order to calculate the relative predictive relevance (q^2) for the exogenous variables, the method proposed by Hair et al. (2014) is used method. They suggested that levels of 0.02,

0.15 and 0.35 show small, medium and large predictive relevance respectively. Table 5-16 demonstrates the relative predictive relevance.

<i>Independent variable → Dependant variable</i>	<i>q²</i>
<i>Consumer Control --> ATUSA</i>	0.011
<i>Incentives assessments -->ATUSA</i>	0.125
<i>Informativeness -->ATUSA</i>	0.081
<i>Irritateness -->ATUSA</i>	0.024
<i>Permission-->ATUSA</i>	0.040
<i>ATUSA-->Brand Awareness</i>	0.072
<i>Incentives assessments -->Brand Loyalty</i>	0.224
<i>Brand trust -->Brand Loyalty</i>	0.051
<i>Brand value -->Brand Loyalty</i>	0.126
<i>ATUSA -->Brand trust</i>	0.029
<i>Brand Awareness -->Brand trust</i>	0.072
<i>Brand value -->Brand trust</i>	0.485
<i>Brand awareness -->Brand value</i>	0.480
<i>Incentives assessments -->Brand value</i>	0.373

Table 5-16 Relative predictive relevance q²

Table 5-16 shows that among the variables predicting attitude toward using SMS advertising, incentive assessments have the highest predictive power (0.125) followed by informativeness (0.081), importance of permission (0.040), irritateness (0.024) and consumers control

(0.011). Furthermore, it is noteworthy that the only exogenous variable with the relative predictive measure below 0.02 is consumers' control.

Attitude toward using SMS advertising has a small relative predictive power on brand awareness (0.072). Regarding brand loyalty, incentives assessments and brand value have medium predictive powers of 0.224 and 0.126 respectively, followed by brand trust with q^2 value of 0.051. Furthermore, brand value has a large relative predictive power on brand trust (0.485). Yet, q^2 values for brand awareness and ATUSA are in the small range group (between 0.02-0.15). Finally, both brand awareness and incentives assessments have strong predictive powers of 0.480 and 0.373 on brand value.

Relative predictive power for antecedents of attitude toward SMS advertising are in the small range (0.02-0.15). This can be a result of the number of predictors in the model. As there are many predictor variables for ATUSA, the absence of one variable would not dramatically affect the prediction power of the model. Concerning q^2 values for online brand equity dimensions, the relative prediction power is strong for parts of the model, while in many cases, it is small. This is because of the nature of the study. As the thesis is not intended to determine the predictors of online brand equity dependent constructs (i.e. brand awareness, brand loyalty), but intends to examine whether there are statistically significant relationships between SMS advertising and online brand equity dimensions.

5-4-8 Goodness of fit

One of the prevailing indexes for assessing the overall model fit for studies using PLS-SEM is the GOF (goodness of fit) criterion as suggested by Tenenhouse et al. (2004). Despite its popularity, there are arguments about its applicability and usage. Hensler and Sarstedt (2013) for example, used simulated data to evaluate the precision and statistical power of GOF criterion in testing their models' overall fit. They found that, unlike its CB-SEM index, which

is proven acceptable, its ability is limited when it comes to PLS-SEM. Based on this argument, Hair et al. (2014) suggested five steps to assessing the GOF of partial least squared structural models as explained earlier in this chapter.

Similarly, this thesis does not calculate the overall fit, instead the acceptability of the model is judged based on the 1) collinearity test 2) significance and relevance of the structural model relationship 3) level of R squared 4) the effect size f^2 and 5) predictive relevance Q^2 .

5-4-9 Hypothesis testing

The analyses of the structural model (using PLS-SEM) showed that all of the proposed relationships are supported and statistically significant. Table 5-17 presents these outcomes. Furthermore, because there is no established statistical test to evaluate the overall model-fit in PLS-SEM analysis, the five steps offered by Hair et al. (2014) were followed to reduce the model error as much as possible. It is proposed that the low levels of multicollinearity in addition to acceptable levels of correlation coefficients and T-statistics can justify the reliability of the relationships. However, concerning R-squared values, the predictive model did not define a large percentage of the changes in brand awareness. It is argued that there are various factors that influence this dimensions of brand equity which are absent in this model and beyond the scope of this research.

When it comes to f^2 (except for consumer control) and Q^2 , they are in acceptable range (f^2 are mostly above 0.02 and Q^2 are above zero). Concerning q^2 , they are above 0.02 except for the case of consumer control. This could be a result of the large number of independent variables predicting ATUSA, which caused very little changes in predictions when only one factor was removed. Same logic can also be used to justify the low levels of f^2 for consumers control's effect on ATUSA. Consequently, it is suggested that despite the statistically acceptable relationship, the effect size and predictive power of consumer control on ATUSA is negligible.

Because the purpose of this thesis is to evaluate the relationships between characteristics of SMS advertising and dimensions of online brand equity, the significance of the correlation coefficient (β) and the associated T-statistics play a more important role than R-squares, f-squares and q-squares.

No.	Hypothesis	Results
H1	There is a positive relationship between informativeness and attitude toward using SMS advertising.	Supported
H2	There is a negative relationship between perceived irritativeness and consumers' attitude toward using SMS advertising.	Supported
H3	There is a positive relationship between incentives assessments and attitude toward using SMS advertising.	Supported
H4	There is a negative relationship between perceived importance of permission and attitude toward using SMS advertising.	Supported
H5	There is a positive relationship between consumer control over SMS advertisements and attitude toward using SMS advertising.	Supported
H6	There is a positive relationship between brand awareness and brand trust.	Supported
H7	There is a positive relationship between brand awareness and brand value.	Supported
H8	There is a positive relationship between brand trust and brand loyalty.	Supported
H9	There is a positive relationship between brand value and brand loyalty.	Supported
H10	There is a positive relationship between brand value and brand trust.	Supported
H11	There is a positive relationship between attitude toward using SMS advertising and brand awareness.	Supported
H12	There is a positive relationship between attitude toward using SMS advertising and brand trust.	Supported
H13	There is a positive relationship between incentives assessments and brand value.	Supported
H14	There is a positive relationship between incentives assessments and brand loyalty.	Supported

Table 5-17 Hypothesise testing

5-5 Conclusion

This chapter presented the results of the data analysis. It started with describing the respondents' demographics and the shares of each brand from the surveyed sample. Then the collected data were screened for missing values, duplicates, normality and consumer response biased to prevent misinterpretations of the findings. Subsequently, before conducting the structural model analysis, the common method variance as well as the reliability and validity of the measurement scales were evaluated.

This thesis adopted PLS-SEM approach and used Smartpls 3 to carry out the path analysis. Consequently, this chapter examined the correlation coefficients and T-statistics for the proposed relationships and concluded that all the proposed hypotheses are supported. In the next stage, the proposed model was analysed based on the levels of R^2 , Q^2 , f^2 and q^2 . This chapter showed that 50.8%, 8.3% , 48.3%, 20.4% and 57.4% of the variations in ATUSA, brand awareness, brand trust, brand value and of brand loyalty are respectively predicted by the proposed model. The lower levels of R^2 were attributed to the predictor variables absent from the proposed model. As all the Q^2 values were above zero, it was suggested that the model has an acceptable predictive relevance. Finally, f^2 and q^2 values were analysed to assess the effect size and relative predictive relevance. All the variables showed values above 0.02 except for consumer control, which showed the f^2 (0.015) and q^2 (0.011). Therefore, this study suggests that although there is a positive relationship between consumer control and ATUSA, its effect size is very small.

In the next chapter, the obtained results are explained in relation to the theory and literature review and the research theoretical and practical contributions are explained.

Chapter 6 - DISCUSSION

6-1 Introduction

The purpose of this chapter is to draw upon the outcomes of the data analysis to answer the research questions and to discuss the findings by comparing them with findings from previous studies. To meet the research aim, this chapter reports the findings in line with the research objectives, which form the foundation of this thesis and relevant conclusions are drawn with implications for research and practice.

Referring to the introduction chapter, the research objectives are:

- Objective 1: To identify the cognitive beliefs that influence students' attitudes toward using SMS advertising in the UK.
- Objective 2: To identify and examine the interrelationships between dimensions of CBBE for online brands.
- Objective 3: To determine the relationship between attitudes toward using SMS advertising and the CBBE dimensions of online brands.
- Objective 4: To determine the relationship between incentives assessments included in SMS advertising messages and the CBBE dimensions of online brands.

The present study took the following steps to fulfil the research objectives. In chapter two, the existing literature on brand equity and SMS advertising were reviewed and chapter three examined the theoretical background upon which relevant hypotheses were developed. Finally, chapter four presented an analysis of the data collected from the questionnaire surveys to address the proposed hypotheses on the relationships between the dimensions of online brand equity and SMS advertising. Consequently, this chapter explains the findings from the analysis in relation to the antecedents of attitudes toward the use of SMS advertising and the effect on the dimensions of online brand equity for customers in the UK.

6-2 Antecedents of attitude toward using SMS advertising

The first research objective is concerned with identifying the factors that influence consumers' attitudes toward using SMS advertising (ATUSA). While several studies have investigated the general antecedents of attitudes toward SMS advertising (attitude toward an object) (i.e. Aslam et al., 2016; Haghirian & Madlberger 2005; Tsang et al., 2004; Ul Haq, 2012), or attitudes toward specific SMS advertisement (object) (Drossos et al., 2007; 2013; Varnali, 2014), this study focuses on the influence of attitudes toward using SMS advertising on brand equity (attitude toward an act). This decision is justifiable because in the context of this study, it is assumed that SMS advertisements are used to encourage consumers to remain connected to brands. Hence, consumers' attitude toward using SMS advertising was considered as a useful construct for evaluating the impact of text message advertisements on brand equity. In other words, attitude toward the act (using SMS advertising) provides a useful measure for identifying consumers' views on text message advertising and the impact on their connection to brands.

Accordingly, this thesis defined attitude toward using SMS advertising as an individual's summary evaluation on the effectiveness of SMS advertising, based on Pollay & Mittal (1993). Furthermore, to develop hypotheses on the antecedents of attitudes toward using SMS advertising, the present study extended the expectancy value theory (Fishbein & Ajzen, 1975). This theory maintained that attitude is a summation of evaluations of beliefs connected to a given object (act) (Fishbein & Ajzen, 1975). Thus, the extant literature on SMS advertising was reviewed to identify the key factors that influence consumers' attitudes toward using SMS advertising. Accordingly, the thesis identified five factors which serve as antecedents of ATUSA, namely, informativeness, irritativeness, importance of permission, incentives assessments, and consumer control.

As explained in the theoretical framework chapter, Dickinger et al. (2004) and Xu (2006) showed that message characteristics exert a substantial influence on attitudes toward SMS advertising. Accordingly, Haghirian & Madlberger (2005) and Tsang et al. (2004) found that informativeness (INF) and Irritateness (IRR) significantly influence attitudes toward SMS advertising. This proposition formed the foundation for hypotheses H1 and H2. It was posited that since informativeness and entertainment influence attitude toward SMS advertising, it could be assumed that both constructs also influence consumers' attitudes toward using SMS advertising (ATUSA). The findings from this thesis confirmed that a significant relationship exists among the constructs based on a survey of students in the UK.

6-2-1 Informativeness and attitude toward using SMS advertising (H1)

This study posited a positive relationship between informativeness and attitudes toward using SMS advertising (H1). Informativeness is conceptualised as the capability of the advertisements to convey useful and helpful information to targeted audiences (Ducoffe, 1996). In order to examine the developed hypothesis, PLS-SEM analysis was conducted using Smartpls 3. The results confirmed that H1 is supported. As a result, it is shown that there is a positive and significant relationship ($\beta=0.297$, $T=5.33$, $p < 0.01$) between informativeness (INF) and attitude toward using SMS advertising (ATUSA) in the UK. Furthermore, to measure the effect size of informativeness on ATUSA, f^2 was calculated. As shown in the data analysis chapter, the effect of INF on ATUSA ($f^2=0.089$) is above the minimum cut-off level of 0.02 (Hair et al., 2014) although the effect size is small.

This small effect of INF on ATUSA could be attributed in part to the high number of predictive factors for ATUSA included in the model. Since numerous factors predict attitude toward using SMS advertising, the predictive power of INF is reduced. Using the same logic, the low predictive power of INF ($q^2=0.081$) on ATUSA could also be attributed to the high number of

ATUSA predictors. It should however be noted that q^2 is also above minimum required level of 0.02.

Therefore, it is suggested that the extent to which consumers find SMS advertising messages informative (i.e. they provide them with exclusive or timely information that they need), is positively correlated with their attitudes toward SMS advertising from targeted brands. This is in line with previous studies such as Almosawi (2014), Tsang et al. (2004), Haghirian & Madlberger (2005) and Nwagwu & Famiyesin (2016) which found a significant relationship between informativeness and consumers attitude toward SMS advertising. Yet, this finding contradicts the outcomes from Xu (2006) who could not find any meaningful associations between mobile advertising informativeness and attitude toward mobile advertising. In justifying the absence of this relationship, Xu (2006) argued that their results were hardly in contrast to Tsang et al. (2004) where informativeness was found to marginally (less than 2%) contribute to consumers attitudes toward SMS advertising.

The weak correlations between these constructs in Tsang et al. (2004) and absence of any relationship in Xu (2006) can be attributed to the country and geographical context of their studies since both studies were conducted in Taiwan and China respectively. Whereas, the present study resonates with the findings from Haghirian & Madlberger (2005) (conducted the research in Austria) where the results were significant.

In summary, informativeness is influential as a predicting factor of customers' attitudes toward using SMS advertising in the UK. Therefore, H1 is supported in line with this study's expectations as well as findings from majority of previous studies.

6-2-2 Irritiveness and Attitude toward SMS advertising (H2)

The findings from this study supported H2 and showed that the irritiveness of SMS advertising (IRR) has a negative influence on ATUSA (attitude toward using SMS advertising).

Irritateness in SMS advertising refers to messages that are perceived as “provoking” or seen to cause “displeasure and momentary impatience” (Aaker & Bruzzone 1985, p. 48). After analysing the data, the path correlation obtained for this relationship was -0.137 and the T-statistics was significant ($T=2.08$, $p < 0.05$). Therefore, based on this finding, irritateness of text message advertisements is shown to significantly influence attitudes toward using SMS advertising among the surveyed students in the UK.

Hence, the findings of this thesis in this regard align with those of previous studies (Aslam et al., 2016; Luna Cortez & Royo Vela, 2013; Tsang et al., 2004; Varnali, 2014) where a negative relationship was established between irritateness and attitude toward SMS advertising. However, the effect of irritateness on attitude toward using SMS advertising ($f^2=0.026$) was small and similar to informativeness, the low effect size of irritateness on ATUSA can be attributed to the large number of the predictor variables in the study. Furthermore, to measure the predictive value of IRR for ATUSA, the blindfolding procedure was conducted in Smartpls 3 which yielded a q^2 value of 0.024.

Therefore, brands using SMS advertising must be wary of the negative impact of annoying, and overly manipulative or offensive SMS messaging. Furthermore, such brands must also recognise the negative effect of unsolicited messages and spams which have been implicated in previous studies as sources of irritateness (Dickinger et al., 2004). A Review of previous literature shows that there is no unanimous view on the effect of advertising irritateness on consumers’ attitude. For example, studies such as Luna Cortez & Royo Vela (2013) and Tsang et al. (2004) show a negative influence on consumers’ attitude toward SMS advertising whereas, other studies such as Xu (2006) and Keshtgary & Khajehpour (2011) showed that irritateness had no effect on Chinese and Iranian consumers’ attitude toward SMS advertising.

This discrepancy among the studies regarding the role of irritativeness on attitudes toward SMS advertising can also be attributed to contextual factors. For example, one of the differences between the UK and Iran is the regulations regarding SMS advertising. While brands are allowed to send marketing text messages to customers in Iran without prior consent or consumers' approval, SMS advertisers in the UK requires the recipients' permissions. In the UK, regulations on SMS advertising are set by institutions like the Mobile Marketing Associations (MMA), Data protection Act and the New Electronic Communication Directive (Kerckhove, 2002). For example, MMA requires firms to send messages that comply with the following characteristics; to be "legal, decent, truthful, permission based, responsible, responsive, and respectful". Also, consumers must be provided the choice to opt-out if they are not interested (Mobile Marketing Association, 2003).

In summary, the findings of this thesis in this regard demonstrate that the irritativeness of text message advertising negatively affects consumers' attitudes toward the use of SMS advertising. However, the effect size (f^2) analysis shows that this effect is likewise small in line with studies such as Haghirian & Madlberger (2005) and in contrast with others like Luna Cortez & Royo Vela (2013) who considered irritation as a key factor affecting consumers' attitude toward SMS advertising. This discrepancy could be attributed to the fact that, in the latter, the effect of informativeness and permission was not modelled.

6-2-3 Incentives assessments and attitude toward using SMS advertising (H3)

The findings from this thesis support H3 and confirm a positive direct relationship between incentives assessments (INC) and ATUSA ($\beta=0.332$, $T=5.39$, $p<0.01$). In fact, the relationship between INC and ATUSA showed the strongest correlation among the other factors examining ATUSA. The estimated effect of INC on ATUSA was f^2 (0.13) – which was the highest effect on ATUSA among all the variables examined. Furthermore, the q^2 value for INC on ATUSA

was estimated at 0.125. The predictive power (q^2) and effect size (f^2) of INC on ATUSA shows the importance of this factor in the model. This finding thus suggests that despite the high number of factors linked to ATUSA, INC had the highest effect size (around 0.15) and predictive power (0.125) on ATUSA.

Incentives assessment in this study is conceptualised in line with Darke & Chung (2005) and it is captured as the consumers' overall assessment of the promotional offers. Hence, it could be suggested based on the findings of this study that consumers' positive evaluations of the offers received from brands through text message advertising has a positive influence on their attitude toward using SMS advertising by those brands. This finding supports previous studies such as Milne & Gordon (1993) where SMS advertising recipients were found to be interested in receiving some accompanying monetary value in their text messages. Similarly, Pastore (2002) showed that nine out of ten respondents expect monetary compensation in return for their agreement to participate in text marketing campaigns. Furthermore, Barwise & Strong (2002) and Milne & Gordon (1993) explained that the inclusion of monetary incentives could increase the acceptance of text marketing.

In summary, the data analyses showed that when consumers positively evaluate the incentives included in a brand's text message advertising, such consumers develop a positive attitude toward using the brand's SMS advertising. In this regard, studies like Pihlstrom & Bush (2008), Tsang et al. (2004) and Drossos et al. (2007) suggested that including incentives in SMS advertising increases the likelihood of acceptance of such campaigns.

This study makes contributions to knowledge by lending support to the existence of the relationship between incentives assessments and the ATUSA, in a new context (the UK). Likewise, this study confirms the significance of this relationship using a model with several

predicting factors of ATUSA. This model explained about ($R^2=0.508$) 50.8% of changes in the attitude toward using SMS advertising (ATUSA).

6-2-4 Importance of permission and attitude toward using SMS advertising (H4)

Findings from the analyses confirmed the existence of a negative relationship between importance of permission and ATUSA (Attitude toward using SMS advertising). Therefore, hypothesis H4 is fully supported. It is shown that importance of permission has a significant and negative relationship with ATUSA ($\beta = -0.156$, $T = 2.96$, $p < 0.01$). Moreover, it generates an effect of ($f^2 =$) 0.046 and prediction relevance of ($q^2 =$) 0.040. The effect size and relative prediction relevance for the relationship between importance of permission and ATUSA is above the minimum required level of 0.02 (Hair et al., 2014). However, the small size of f^2 and q^2 (between 0.02 and 0.15) can be attributed to the high number of factors predicting ATUSA.

Permission is conceptualised as the explicit consent given by customers to opt in SMS advertisements (Aslam et al., 2016; Chang, 2013). However, in this study, it was not possible to directly evaluate the relationship between permission and attitude toward SMS advertising since all the respondents had previously granted permissions to receive such marketing messages, due to the regulations in the UK. Therefore, rather than measuring consumers' consent the importance of permission was used as an alternative to explicit permission.

Importance of permission is conceptualised as the extent to which consumers assess the implications of being able to decide whether to participate in SMS advertising (Merisavo et al., 2007). Subsequently, it is concluded that consumers who emphasize on asking for permission prior to sending any SMS advertising messages, show more negative attitudes toward using SMS advertising in comparison to consumers who find prior permission less crucial. This relationship is understandable because consumers who are more conscious about their

permission are more likely to associate negative perceptions about using SMS advertising compared to more relaxed consumers.

Therefore, this finding highlights the importance of asking for consumers' consent and allowing them to opt out from text marketing campaigns at any time, to prevent any negative attitudes toward using SMS advertising. This validates studies by Aslam et al. (2016), Barnes & Scornavacca (2004), Carroll et al. (2007), and Tsang et al. (2004) who found a significant relationship between giving permission and attitude toward SMS advertising.

6-2-5 Consumer control and attitude toward using SMS advertising (H5)

Data analysis showed a positive and direct relationship between consumer control (Control) and attitude toward using SMS advertising (ATUSA) ($\beta=0.101$, $T=2.00$, $p < 0.05$). It was further demonstrated that the effect size ($f^2=0.015$) is very small (below 0.02 minimum required level) and predictive relevance ($q^2=0.011$) negligible. Although a high number of ATUSA predictors can generally result in smaller effect sizes and predictive relevance, in case of consumer control these values appear to be very small. Therefore, even though findings support the initial hypothesis on a positive relationship between consumer control and ATUSA, the effect is very small. Consumer control refers to the degree to which consumers perceive they have control over the SMS advertisements that they receive (Barwise & Strong, 2002). Therefore, among the variables that predict the attitude toward using SMS advertising in this thesis, control has the smallest effect.

Scharl et al. (2005) showed that acceptance of promotional messages (m-coupons) is influenced by the consumers' perceived control over the number, content and time of receiving such coupons. They further clarified that consumers who felt they had less control were more likely to feel that their privacy is violated and thus, showed negative attitudes toward mobile marketing. Similarly, as discussed in the theoretical framework chapter, Dickinger & Kleijnen

(2008) demonstrated that perceived control over mobile coupons has a positive effect on attitude toward SMS advertising. Similarly, Watson et al. (2013) showed that consumer control is an important and significant factor in determining consumer's acceptance of mobile marketing. However, Carrol et al. (2007) found that consumer control had the least effect on factors affecting consumers' attitude toward SMS advertising. Khasawneh & Shuhaiber (2013) and Merisavo et al. (2007) could not find a positive and significant relationship between consumer control and attitude toward SMS advertising.

Hence, findings from this study are in line with Carrol et al. (2007), where consumer control had the least impact on attitude toward using SMS advertising. Merisavo et al. (2007) attributed this discrepancy to the geographical locations and relevant regulations. Subsequently, finding from this thesis, show that the effect of consumers' control on influencing students' attitude toward using SMS advertising in the UK is minimal.

6-2-6 Factors with the largest effect on attitude toward using SMS advertising

After identifying the factors that influence attitude toward using SMS advertising, the effect size of identified elements should be clarified. Hence, f^2 values for all the items are compared and the results explained. As it is shown in previous chapter, incentives assessments (INC) has the highest effect size ($f^2 = 0.13$) and the highest impact on attitude toward using SMS advertising.

The second most influential factor affecting ATUSA is informativeness ($f^2 = 0.089$), followed by importance of permission ($f^2 = 0.046$), irritativeness ($f^2 = 0.026$) and consumer control ($f^2 = 0.015$) respectively. It should be noted that all effect sizes except for consumers' control are above the minimum required value of 0.02. However, they all fall within the small effect size range (0.02-0.15) (Hair et al., 2014). It is argued that the low effect sizes found in this thesis are due to the number of variables influencing attitude toward using SMS advertising

included in the model. Since the effects of several variables are measured concurrently, the effect size from each variable is limited.

In addition, it is found that Q^2 size for all variables are above zero which shows the model has an acceptable predictive power. When the relative predictive relevance for each construct is measured, it is found that except for consumer control, which is 0.011 (below 0.02), other variables have a q^2 value of above (0.02). With the same logic, it is explained that due to numerous variables included in the model, the predictive relevance of the independent variables is decreased. In other words, the removal of a variable in the blindfolding process does not dramatically influence the results as there are numerous predictors in the model. Yet, when it comes to consumer control, the data suggests that the effect size and relative predictive relevance are below 0.02. This low effect size and predictive relevance ($q^2 = 0.011$) may raise questions about the impact of consumer control in the model. Subsequently, it is suggested that while there is a statistically significant relationship between consumer control and attitude toward using SMS advertising, consumer control does not have a significant effect on ATUSA.

In summary, the thesis found that among the variables that influence attitude toward using SMS advertising, incentives assessments has the highest effect size followed by informativeness, permission, irritativeness and consumer control. These findings suggest that the benefits included in SMS advertisements such as incentives and information have the most influential impacts on consumers' attitude toward using SMS advertising compared to consumers' concern over their permission, irritativeness, and control. These outcomes are justifiable because the brands investigated in the present study practiced permission based SMS advertising where consumers could opt-out easily. Therefore, this ability to opt-out from the campaign is suggested to reduce the negative impact of irritativeness and permission on attitude toward using SMS advertising and embolden the benefits of using SMS advertising. In

addition, the low impact of consumer control on ATUSA is in line with previous studies such as Carrol et al. (2007).

6.3 Dimensions of online brand equity and Hierarchy of effects

The second objective of this research was to identify the dimensions of online brand equity and examine the interrelationships between them. Accordingly, this research took the following steps. Firstly, brand equity literature was reviewed and various dimensions of brand equity in online (Christodoulides et al., 2006; Rios & Riquelme, 2008; 2010; Rana et al., 2015) and offline contexts (Aaker, 1991; Keller, 1993; Lassar et al., 1995; Yoo et al. 2000) were identified.

Secondly, the Literature review chapter provided justifications for selecting brand awareness, brand trust, brand value and brand loyalty as the dimensions of online brand equity for this study. Finally, based on the Hierarchy of effects model in the Theoretical framework chapter, hypotheses (H6-H10) were developed to demonstrate the relationship between dimensions of online brand equity. It is noteworthy that other studies such as Buil et al. (2013 a; 2013 b), Keller & Lehman (2003; 2006) and Perez et al. (2015) have used this model to demonstrate the associations between various dimensions of brand equity.

Using the hierarchy of effects model, Buil et al. (2013b) demonstrated that the evolution of brand equity is a customer's learning process wherein brand awareness leads to brand associations and eventually to attitudinal loyalty. Subsequently, this chapter explains the results for five hypotheses of H6 to H10, examining the connections between the dimensions of online brand equity.

6-3-1 Brand awareness and brand Trust (H6)

As shown in the data analysis chapter, the influence of brand awareness on brand trust ($R^2=0.483$) is found significant ($\beta=0.206$, $T=4.26$, $p < 0.01$) and the sixth hypothesis is supported.

When it comes to effect size ($f^2 = 0.069$) and predictive relevance ($q^2 = 0.072$), it is shown that they are above the minimum required level of 0.02 and in the small effect range of (0.02 - 0.15) (Hair et al., 2014). Therefore, it can be inferred that brand awareness has a statistically significant and direct relationship with brand trust.

Brand awareness in this thesis is conceptualised in line with Keller (2008, p.8), as consumers' "ability to recall or recognise a brand" and the extent that they know about the brand. Furthermore, brand trust is adopted from Delgado-Ballester & Munuera-aleman (2003, p.37) as "the confident expectations of the brand's reliability and intentions in situations entailing risk to the consumer." This definition of trust includes both aspect of consumers' expectations from the brand promises as well as the perceived vulnerabilities involved with brand proceedings. Therefore, this study shows that when consumers have high tendency to recognise or recall brands, they are more likely to trust such brands.

The relationship between brand awareness and brand trust has been studied in various contexts. For example, in the offline context, Aaker (1991) suggested that higher brand awareness could result in brand associations (including trust) because awareness may lead consumers to assume that such brands have been in business for a long time. Similarly, Buil et al. (2013b) found a significant relationship between brand awareness and brand associations (such as trust and credibility) for sportswear, consumer electronics, and car brands. Furthermore, Rios & Riquelme (2008) also supported the direct relationship between brand awareness and brand trust for online retailer such as Amazon, e-Bay, CDNow, and Dell.

However, Rios & Riquelme (2010) could not find a significant relationship between brand awareness and brand trust when investigating for the effect of online marketing activities such as online customer service, fulfilment, and web functionality on the dimensions of online brand

equity. Hence, it is necessary to examine whether this relationship holds valid for the brands under study.

Therefore, finding support for this relationship can be advantageous to research on online discount sites operating in the UK. In summary, this hypothesis examined the effect of brand awareness on brand trust in a new context and found a statistically significant relationship between brand awareness and brand trust.

6-3-2 Brand awareness and Brand value (H7)

The PLS-SEM analysis showed a positive relationship between brand awareness (AW) and brand value ($R^2=0.204$) ($\beta=0.316$, $T=6.42$, $p < 0.01$). The effect size of AW on brand value (Value) ($f^2=0.123$) fell in the small range (0.02 - 0.15), however it fell well above the minimum required level of 0.02 and closer to the medium range. Furthermore, the predictive relevance value of ($q^2=0.480$) fell in the strong range (above 0.35) (Hair et al., 2014). Hence, H7 is supported and it is possible to propose that brand awareness has a positive influence brand value.

Brand value in this study is conceptualised in line with Liu et al. (2015), Kim et al. (2007), He et al. (2010), He et al. (2012), Kim & Gupta (2009) and Wu et al. (2014), from the perspective of trade-off between gains and sacrifices. Accordingly, Zeithaml's (1988) conceptualisation of value as received benefits in comparison to given (costs) is adopted. Zeithaml (1988, p.14) defines customer value as "The consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given." Therefore, it is possible to infer that when consumers' recall or recognise the brand, they are more likely to value (more potential gains or less potential sacrifices) their dealing with the brand, compared to unfamiliar brands.

This result is particularly interesting for the brands that are active in daily deal sector. It shows that if consumers know the brand, they are more likely highly value their dealings with the

brand. This is justifiable because firstly, brand awareness allows consumers to predict their purchase (interaction) results (i.e. perceive lower sacrifices such as losing time or money) (Janiszewski & Osselaer, 2000), therefore, they are able to perceive benefits and value in transactions with known brands compared to unknown brands. Secondly, Keller (2003) and Langaro et al. (2015) pointed out that brand awareness serves as a node in consumers' memory which when activated, triggers the associations to the brands in the consumers' mind. Accordingly, as the nature of the brands in the study is to provide consumers with monetary and non-monetary sales promotions and relevant information it is possible to conclude that; when consumers' recognise and recall the brand the associations related to the gains (such as free gifts and money-saving offers) are activated in consumers' mind, which in turn explains the correlation between brand awareness and brand value.

The results are in line with previous studies such as Baldauf et al. (2003), Buil et al. (2013 b), Rios & Riquelme (2008; 2010) and Wang (2015). In summary, the findings shed light on the relationship between brand awareness and brand value in the online discount sector in the UK.

6-3-3 Brand Trust and Brand Loyalty (H8)

The hypothesized model was analysed and the results show that brand trust has a positive and significant relationship with brand loyalty ($R^2 = 0.574$) ($\beta = 0.233$, $T = 3.85$, $p < 0.01$). Furthermore, the effect size ($f^2 = 0.073$) and predictive relevance ($q^2 = 0.051$) were calculated, and fell within the small effect range (0.02-0.15). Therefore, it is suggested that the relationship between brand trust and brand loyalty (attitudinal loyalty) is statistically significant (supporting H8).

It should be noted that in line with Oliver (1999), this research focused on brand loyalty from an attitudinal perspective. Oliver (1999, p. 34) defined brand loyalty as "a deeply held commitment to re-buy or re-patronize a preferred product/service consistently in the future,

thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behaviour”. Therefore, it is concluded that when consumers have higher brand trust (i.e. believe that the brand fulfils its promises and does not take advantage of their vulnerabilities), they are more likely to form an attitudinal loyalty toward the brand.

Previous studies have examined the relationship between brand trust and brand loyalty extensively. For instance, Chaudhuri & Holbrook (2001), Rios & Riquelme (2008; 2010) Thompson et al. (2014), Harris & Goode (2004), Ball et al. (2004), Veloutsou (2015) and Sirdeshmukh et al. (2002) found a positive and significant relationship between both constructs. El-Manstrly (2016) and Wilson (1995) viewed brand trust as the building block for brand loyalty. The findings of the present study support the relationship between brand trust and brand loyalty. However, the effect size of brand trust is considered small and can be attributed to the nature of online business. For instance, as the online brands in this study are loyalty programs, it is possible to assume that consumers are more likely to trust such brands. In addition, because the online brands are active in daily deal markets, it is not surprising that brand value plays a more significant role in determining the brand loyalty to such brands.

In summary, the findings from this thesis support the relationship between brand trust and brand loyalty in the context of the specified online brands. Furthermore, it is shown that the effect of brand trust on brand loyalty is (in the small range) not as high as the effect of brand value ($f^2 = 0.16$) which can be attributed to the nature of the online brands.

6-3-4 Brand value and brand Loyalty (H9)

The hypothesized model was analysed and the results show that brand value has a positive and significant relationship with brand loyalty ($R^2 = 0.574$) for online brands ($\beta = 0.362$ $T = 5.43$ $p < 0.01$). Furthermore, the model showed a medium effect size of brand value ($f^2 = 0.169$) and

small predictive relevance ($q^2 = 0.126$) on brand loyalty (between 0.15-0.35 (Hair et al., 2014)). Despite the small predictive relevance of this factor (0.02-0.15), the statistically significant relationship and medium effect size of brand value on brand loyalty makes it an important factor influencing brand loyalty. Hence, it is concluded that H9 is supported and a positive relationship exists between brand value and brand attitudinal loyalty for the online brands specified in this study.

The findings in this section support previous studies such as Chai et al.,(2015), Chiu et al. (2014) and Sirdeshmukh et al. (2002) where it was shown that consumer' perceived value (linked to the brands) can influence intentions and motivations to re-patronise brands. Subsequently, it is suggested that in the context of this study (online brands that are active in daily deal sites), brand value (consumers evaluations between gains and sacrifices linked to the brand usage) correlates with the brand's attitudinal loyalty. This finding is in line with Sirdeshmukh's et al. (2002) explanation that superordinate goals are likely to regulate the subordinate goals. In this context, brand value is viewed as a superordinate goal (i.e. to gain benefits and value) and influences the brand attitudinal loyalty (i.e. preferring to use the brand or using the brand in next few years) which acts as a subordinate goal.

In summary, the finding support H9 and it shows that there is a direct relationship between brand value and brand loyalty for online brands. This finding adds to knowledge by evaluating this relationship in a new context (online loyalty brands active in daily deal sites). Furthermore, the medium effect size of this relationship shows that brand value has the second highest impact on brand loyalty after incentives assessments. In the next section, the influence of brand value and brand trust is explained.

6-3-5 Brand value and Brand Trust (H10)

The results of the analysis confirmed a positive relationship between brand value and brand trust ($R^2 = 0.483$) ($\beta = 0.535$, $T = 11.08$, $p < 0.01$). It also shows that brand value has a large effect size (f^2) of 0.451 on brand trust. The predictive relevance (q^2) of the model was estimated at 0.485. As it is clear from the outcomes, brand value has a significant relationship and a large statistical effect on brand trust, thus, H10 is supported.

Harris & Goode (2004), Karjaluoto et al. (2012), Moliner et al. (2007) and Rios & Riquelme (2008) have supported the relationship between brand value and brand trust in various contexts. However, Rios & Riquelme (2010) contradicted those studies and could not find any link between brand trust and brand value. Therefore, the outcomes of this research contribute to the body of knowledge by demonstrating that this relationship holds valid for the specified online brands in the context of this study.

To elaborate on the correlations between brand value and brand trust, this thesis draws upon research studies such as Karjaluoto et al. (2012) and Morgan & Hunt (1994). Karjaluoto et al. (2012) maintained that when consumers receive a competent service from a provider, they associate a high value to that provider and subsequently trust the brand. Similarly, Morgan & Hunt (1994) suggested that perceived benefits of a relationship form the basis for trust. Accordingly, the present study suggests that brand value (the perceived gains that consumers associate with using the online brand i.e. good discount offers and benefits compared to the sacrifices i.e. losing time or privacy risks) affects brand trust (i.e. the degree to which brand fulfils its promises and keeps their information safe).

In brief, the research findings support the relationship between brand value and brand trust in the context of the online brands (supporting H10) and this aligns with majority of previous studies such as Harris & Goode (2004).

6-4 The influence of SMS advertising on dimensions of online brand equity

After determining the antecedents of attitude toward using SMS advertising and clarifying the interrelationships between dimensions of online brand equity, the next step is to analyse the links between SMS advertising and the CBBE dimensions. Throughout the thesis, two potentially influential factors in SMS advertising that could affect the dimensions of online brand equity were identified, namely, attitude toward using SMS advertising and incentives assessment. Consequently, using hierarchy of effects model (Lavidge and Steiner (1961), hypotheses were developed to demonstrate the relationship between SMS advertising and the dimensions of online brand equity; in order to address research objectives 3 and 4.

Hierarchy of effects model (Lavidge and Steiner, 1961) has been vastly used in the literature to investigate the effect of advertising (Yoo, Kim & Stout, 2004). Based on this model, consumers go through various psychological “stair-step” stages, starting with unawareness of the product to the actual purchase (Yoo et al., 2004, p.49). Similarly, previous scholars extended this theory to dimensions of consumer based brand equity and investigated the effect of advertising and other promotional activities on the dimensions of brand equity (Buil et al., 2013a; 2013b; Yoo et al., 2004; Zhang & Mao, 2016). Accordingly, this study posited relationships between attitude toward using SMS advertising and brand awareness and brand trust (H11 & H12). Furthermore, H13 and H14 suggested a positive relationship between incentives assessments and brand value as well as incentives assessments and brand loyalty. In the next section, the findings are elaborated and clarified.

6-4-1 Attitude toward using SMS advertising and brand awareness (H11)

The results support the existence of a relationship between attitude toward using SMS advertising and brand awareness ($R^2 = 0.083$) for online brands ($\beta = 0.288$, $T = 4.79$, $p < 0.01$).

Therefore, it is possible to conclude that consumers who show a positive attitude toward using SMS advertising are more likely to recall or recognise the online brands that send them advertising text messages. Although this relationship is significant, R squared value is not as high as for other dimensions of brand equity. The low R-squared value can be attributed to missing variables in the model that contribute to brand awareness. Furthermore, data analysis showed that the effect size of ATUSA on brand awareness is small ($f^2 = 0.09$) (between 0.02-0.15). Additionally, the predictive relevance Q^2 was 0.072 which falls above the threshold of zero and confirms the predictive power of the model (Hair et al., 2014). Finally, the relative predictive power (q^2) for ATUSA was equal to 0.072.

As explained earlier, low R^2 values and small effect sizes ($f^2 = 0.09$) are not unexpected as the purpose of this research is to identify possible relationships between attitude toward using SMS advertising and brand awareness rather than identifying the factors that influence brand awareness in general. Therefore, it is possible to conclude that there is a positive relationship between attitude toward using SMS advertising and brand awareness (supporting H11).

Previous studies such as Barwise & Strong (2002), Trappey & Woodside, (2005), Pousttchi & Wiedemann (2006) and Smutkupt et al. (2012) showed that there is a positive relationship between text message advertising and brand awareness. For instance, Smutkupt et al. (2012) demonstrated that SMS advertising can increase the brand presence in consumers' mind and in turn, increase brand awareness. In the same vein, this thesis found a positive relationship between attitude toward using SMS advertising and brand awareness. In other words, consumers who have positive evaluations about using SMS advertising from a brand are more likely to recognise or recall the brand. This is justifiable because consumers who show positive attitude toward using SMS advertising are more likely to get exposed to brand.

In summary, this research shows a positive and significant relationship between ATUSA and brand awareness. However, the effect (f^2) is small and only explains 7% of the variations in brand awareness. This could be due to the absence of some variables in the model that may also contribute to brand awareness. The next section analyses the relationship between ATUSA and brand trust.

6-4-2 Attitude toward using SMS advertising and brand trust (H12)

Data analysis showed that there is a strong relationship between attitude toward using SMS advertising (ATUSA) and brand Trust ($R^2=0.483$) ($\beta=0.124$, $T=2.80$, $p < 0.01$) with an effect size of (f^2) 0.026 and relative predictive relevance of (q^2) 0.029. Therefore, it is concluded that there is a positive and significant relationship between ATUSA and brand trust (supporting H12). Although this relationship is significant, the effect of ATUSA on brand trust is small (0.026). It shows that the effect of other factors like brand awareness and brand value may limit the effect of ATUSA. Hence, it is concluded that when consumers have a positive attitude toward using SMS advertising from a brand, they are more likely to trust that brand.

The relationship between ATUSA and brand trust has not been studied in the past. This is an important finding as it shows that despite the limitations of SMS advertising, it nonetheless has a potential influence on brand trust. This conclusion supports past research such as Ball et al. (2004), Chinomona (2016) and Morgan & Hunt (1994) who demonstrated that a brand's communications with its customers can influence the brand consumers' trust. In a similar vein, it is concluded that when consumers find SMS advertising from a brand to be positive and good communication, they likewise form positive attitude toward using them. This positive attitude can be attributed to the benefits that consumers associate with using SMS advertising. Subsequently, this positive attitude can result in a stronger bond between the brand and its customers (i.e. consumers are more likely to be exposed to brand communications, read the

text messages, familiarize themselves with the brand, and form brand perceptions) which in turn improves brand trust. This is in line with Ball et al. (2004) who suggested that good marketing communications expose consumers to brands and this exposures influences different aspects of consumer-brand relationship, including trust (Ball et al., 2004).

In brief, the findings from this thesis showed that there is a positive and significant relationship between ATUSA and brand trust. This is justifiable because as a result of positive attitude toward using a brand's SMS advertising, consumers are more likely to come across the brand offering, text messages and familiarise themselves with the online brand and institution. Accordingly, they are more likely to form positive associations and perceptions about the online brand (as they have positive attitude toward using the advertisements) and consequently, they are more likely to trust the brand. However, findings showed that the effect is small and some other factors have a higher impact on brand trust. This finding support H12 and confirms previous studies on the role of good brand communications in improving consumers' trust (i.e. Alonso Garcia, 2013; Azize et al., 2012; Ball et al., 2004; Chinomona, 2016; Gavilan et al., 2014; Li & Miniard, 2006; Nguyen & Nguyen, 2011; Romani, 2006; Sheinin et al., 2011). In the next section, the relationship between incentives assessments and brand value is discussed.

6-4-3 Incentives assessments and brand value (H13)

Findings from data analysis confirm the hypothesised relationship between incentives assessments and brand value ($R^2 = 0.204$) ($\beta = 0.280$, $T = 4.43$, $p < 0.01$), hence, supporting H13. Results of effect size estimation show that incentives assessment had an effect size equal to 0.097. The relative predictive power was calculated and it was found that incentives has a strong relative predictive power ($q^2 = 0.373$). Therefore, it is concluded that consumers' assessment of the incentives included in text messages has a positive and statistically significant relationship with brand value. However, the effect size is unexpectedly small,

despite a large predictive relevance. This small effect size explains around 10% of the variations in the brand value.

The findings are important from two perspectives. Firstly, they support the initial proposition from this thesis that incentives in the context of this research appear to be similar to non-monetary incentives in relation to brand value. In other words, they do not carry the negative effects of monetary promotions such as negatively impacting brand value. To elaborate, it is evident from previous research that monetary sales promotions can negatively affect brand perceptions such as perceived quality (Buil et al., 2013a; Darke & Chung, 2005; Yoo et al., 2000). These negative perceptions can potentially affect the brand value. As value is a trade-off between gains and sacrifice, by reducing gains, it is possible to assume that value also potentially decreases (Zeithaml, 1998). However, in the theoretical framework chapter, it was argued that the purpose of online brands that are active in daily deal sites is to provide consumers with discounts and valuable offers. Therefore, in this context, consumers' assessments of the incentives demonstrate how attractive those monetary and non-monetary promotions are for consumers. Subsequently, it actually shows the extent of the success of the online brands to fulfil their purposes and improve brand value.

Secondly, the results confirm findings from previous studies such as Yoon et al. (2014) who suggested that incentives could improve the value of the brand and influence brand perceptions. Similarly, it is shown that consumers' assessments of the incentives received via text messages from a brand can influence their evaluations of the brand. However, the effect of this relationship is limited. This is justifiable because when consumers are positive about their evaluations of the incentives received, they are more likely to perceive more value in the brands that provide them with such vouchers and coupons. In other words, when consumers receive attractive sales promotions and incentives, they find value in them as they need to make less sacrifices (i.e. spending money) (Rettie et al., 2005; Chen et al., 1998). Hence, consumers who

have positive evaluations about the incentives that they receive via text messages, are more likely to perceive value in those text messages and associate the perceived value to the online brand.

In summary, this thesis shows that incentive assessments are positively linked with brand value. This is in line with the initial proposition that monetary and non-monetary promotions for the brands active in daily deal sites does not damage brand perceptions. This is understandable because the purpose of the online brands are to provide incentives from third-party brands. Furthermore, the present study provides the first validation of a positive relationship between consumers' assessment of the incentives included in text messages and brand value (in the specific context of the online brands). However, it should be noted that the effect size is unexpectedly limited.

6-4-4 Incentives assessments and brand loyalty (H14)

The relationship between incentives assessment and brand loyalty ($R^2 = 0.574$) was found to be significant ($\beta = 0.379$, $T = 8.70$, $p < 0.01$) with an effect size of ($f^2 = 0.3$) and a relative predictive relevance of ($q^2 = 0.224$), which fall in the medium size range (between 0.15-0.35 (Hair et al., 2014)). This supports H14. Hence, consumers who have positive evaluations about the incentives received via the text messages are more likely to show attitudinal loyalty toward the online brands providing those messages.

This research is the first to the best of the author's knowledge to suggest the relationship between the incentives assessments included in the text messages and online brand loyalty. This finding is in line with previous studies such as Zakaria et al. (2014), Sirohi et al. (1998) and Smith & Sparks (2009) where they showed that incentives can significantly influence brand loyalty. However, the results are in contrary to Santini et al. (2016) who could not find any relationship between a brand's sales promotions and brand loyalty. Hence, in the context of

this study, it is shown that consumers' assessments of the incentives received via text message is linked to their attitudinal loyalty to the brand. This has two implications; firstly, from the SMS advertising viewpoint, despite the limitations of SMS advertising, including attractive incentive in the text messages can influence consumers' perceptions about the brand. Hence, SMS advertising can be used to improve consumers' loyalty to a brand (which is essential for online brands).

Secondly, the findings are important from the brand equity perspective. It shows that, in this model where almost 60% of the attitudinal loyalty is explained, 30% (out of 60%) of the variation can be attributed to the assessment of incentives received by text messages. This highlights the importance of using attractive incentives in text messages to improve the attitudinal loyalty toward online brands active in daily deal sites. Since brand loyalty provides an essential value for such websites (Krasnova et al., 2013), the potentials of SMS advertising to influence online brand loyalty is consequential. In sum, this section supports the relationship between consumers' assessments of the incentives included in the text messages and attitudinal loyalty toward online brands. This relationship is understandable because when consumers receive attractive deals and benefits from a brand's SMS advertising, they are more likely to form a positive relationship with the brand, which has desirable benefits. Secondly, as explained in the theoretical framework chapter, the purpose of online brands that function as loyalty programs is to improve consumers' satisfactions and commitment (Zakaria et al., 2014). Hence, it is possible to conclude that, SMS advertising could be applied as a straightforward and efficient tool to fulfil that purposes. This is in line with eMarketer report (2016 a), wherein it was suggested that respondents prefer SMS for loyalty programs due to its simplicity and ease of use.

6-5 Evaluations of coefficient of determinations for online CBBE dimensions

In this section, the size of coefficient of determinations (R^2) in the model are explained further and the contributing factors are further clarified in the context of the study. As explained earlier in this chapter, all the proposed hypotheses in the model were found significant. Yet, the impact of various predictors of each brand equity dimension in the model need to be analysed. Hence, the effect size of independent variables on predicted consumer based brand equity dimensions construct are compared.

It is noteworthy that R^2 values above 20% are considered acceptable in this study because previous research such as Hair et al. (2014) explained that there is no rule of thumb for fixing cut-off levels for R^2 coefficient of determination. They further clarified that depending on the complexity of the model and the purpose of the research, the satisfactory minimum levels could vary. For instance, when studies focus on consumer behaviour, 20% is considered acceptable, however, when the purpose is to identify the success drivers of a phenomenon, much higher R^2 value is required (Hair et al., 2014). Thus, since this thesis is not positioned to find the success factors but rather, to examine the possible relationships, it is suggested that R^2 values above 20% are acceptable.

Starting with brand awareness, it is found that the model predicts 8.3% of the variations in the brand awareness. Although this coefficient of determination (R^2) is small, it is not unexpected. Since the purpose of the model is to examine the significance of the relationship between brand awareness and ATUSA, there are missing variables not included in the model. Therefore, this small effect could be attributed to these missing influential factors.

The present model shows a Q^2 of 0.373 (above zero) and explains 48.3% of the variation (R^2) for brand trust. Among the variables predicting this construct, brand value has the highest effect

size of ($f^2=$) 0.451, followed by brand awareness ($f^2=$ 0.069) and ATUSA ($f^2=$ 0.026). It is noteworthy that while the effect size of brand value is large, the effects of brand awareness and ATUSA fall within the small range. Thus, it is possible to conclude that consumers' positive evaluations of the benefits that they receive from the brand has the highest effect on their trust in the brand. Additionally, despite the positive relationship between attitude toward using SMS advertising and brand trust as well as between brand awareness and brand trust, their effects are also relatively small.

For brand value, the proposed model has an acceptable predictive relevance level ($Q^2=0.150$ (above zero)) and explains 20.4 % ($R^2=0.204$) of the variations in this construct. This thesis identified two predictors for brand value namely, incentives assessments and brand awareness. The effects size analysis revealed that both brand awareness ($f^2=$ 0.123) and incentives assessment ($f^2=0.097$) have small effects on brand value. However, the influence of brand awareness is comparatively higher.

Finally, the proposed model explains 57.4% ($R^2=0.574$) of the variations in brand loyalty and the Q^2 value of 0.387 shows that the model is acceptable. This research measured the effects of three factors on brand value namely, incentives assessments, brand value and brand trust. All three factors were found to have a positive and significant relationship with brand loyalty. Next, the effect size of each variable was calculated and the results showed that incentives assessment ($f^2=0.3$) has the highest effect followed by brand value ($f^2=0.169$) and brand trust ($f^2=0.26$). The findings are very interesting because firstly, it shows that the effect of incentives included in the text messages on brand loyalty is significant and strong (larger than two other factors) for students who have opted in SMS advertising campaigns.

Secondly, among the three variables predicting brand loyalty, incentives assessments has the highest effect, which is rather surprising. This high effect can however be justified by

considering the context of this study and new reports i.e. eMarketer (2016 a), wherein it has been suggested that consumers prefer text messages for loyalty programs. They also argued that the hassles associated with mobile applications and websites (i.e. downloading mobile applications, creating accounts and signing in) makes the simplicity of SMS advertising appealing. Thus, as text messages are appealing for loyalty programs, it is justifiable to record a high effect between incentives assessment and brand loyalty (for loyalty programs that are active in daily deal sites).

It should be noted that in the context of this study, brand value has a higher impact on brand loyalty in comparison to brand trust. Although this finding is in line with previous studies such as Rios & Riquelme (2008), it contradicts other research such as El-Manstrly (2016). This outcome is acceptable for this research because creating brand value is more in line with the purpose of the specified brands (loyalty programs that are active in daily deal sites sector).

6-6 Conclusion

The purpose of this chapter was to discuss the findings and results of the data analysis in the context of the literature. It started by restating the research objectives developed in the early stages of the thesis. Then the relevant hypotheses for each research questions were discussed and the findings and implications were analysed.

With regard to the first research objective, the variables that form consumers' attitude toward using SMS advertising were identified from existing literature. In total, five variables were identified from previous studies, namely, informativeness, irritativeness, importance of permission, consumer control and incentives assessment.

All the factors were found to have a direct relationship with attitude toward using SMS advertising. Next, the effect size of each variable was calculated to examine how much of the attitude toward using SMS advertising was explained by the respective variable. Incentives

assessments showed the highest effect size (f^2) on attitude toward using SMS advertising, followed by informativeness, importance of permission, irritativeness, and consumer control.

Subsequently, the relationships between dimensions of online brand equity were analysed based on hierarchy of effect model. It was demonstrated that brand awareness has a positive and significant relationship with brand value and brand trust. Furthermore, brand value is proved to have an influence on brand trust. Then, it was clarified that both brand value and brand trust are positively associated with brand loyalty.

After explaining the interrelationships between the dimensions of online brand equity, the hypotheses on the influence of SMS advertising on these dimensions was analysed. It was found that the effects of attitude toward using SMS advertising on both brand awareness and brand trust were statistically significant. However, the impact was small and the effect sizes fell within the range of 0.02 and 0.15.

Incentives assessments also showed a positive and significant correlations with both brand value and brand loyalty and had a small effect size on brand value. However, it showed highest impact on brand loyalty ($f^2=0.3$). Although the effect size of 0.3 is classified in the moderate range by Hair et al. (2014), it is only slightly lower than 0.35 and was comparatively higher than the effect sizes obtained for other variables, namely brand value and brand trust.

In the next chapter, the summary of the findings are presented and the theoretical contribution of this study and its managerial implications are discussed. Furthermore, the limitations of the thesis and future research areas are highlighted.

Chapter 7 - CONCLUSION

7-1 Introduction

The scope of this study was to examine the existence and intensity of possible relationships between characteristics of SMS advertising and dimensions of online brand equity among students in the UK.

The previous literature on mobile marketing - specifically SMS advertising - was reviewed to identify the features and characteristics that influence consumers' attitude toward using SMS advertising. Furthermore, dimensions of brand equity and online brand equity were also determined based on a review of the extant literature. After identifying the features of SMS advertising and dimensions of online brand equity, the thesis developed a hypothetical framework for the relationships among the dimensions of online brand equity and characteristics of SMS advertising, namely, attitude toward using SMS advertising (ATUSA) and incentives assessments. Accordingly, 14 research hypotheses were developed to address four research objectives.

As the purpose of the study is to investigate possible relationships between two previously recognised constructs, namely, SMS advertising and online brand equity, a positivist research approach was considered most suitable. In order to test the research hypotheses, 311 self-administered questionnaires were collected from students in the UK using convenience sampling. The hypothetical relationships were analysed using SPSS v. 20 and Smartpls 3.

The results showed positive and significant relationships among the dimensions of online brand equity and SMS advertising characteristics (ATUSA and incentives assessments).

This chapter concisely reviews the findings of this study and highlights the theoretical and managerial implications. Subsequently the research limitations are elucidated and possible future research are presented. Finally, conclusions are drawn from the overall discussion.

7-2 Discussion of Findings

7-2-1 Antecedents of attitude toward SMS advertising

While past research such as Aslam et al. (2016), Almossawi (2014) Dickinger et al. (2004), Tsang et al. (2004), and Haghirian and Madlberger (2005) identified various factors that contribute to attitudes toward SMS advertising, there are still gaps in understanding text message advertising, which the present study aimed to address. First, the majority of studies that have investigated attitude toward SMS advertising were carried out before 2010. Yet, the nature of mobile marketing and advertising has changed dramatically since then with technological improvements. Hence, it is conceivable that the effect and significance of the factors that predict attitude toward SMS advertising have likewise changed. Additionally, no previous research had evaluated the impact of such factors in SMS advertising for online brands in the UK. Furthermore, among the more recent studies (post 2010), the focus has been on attitudes toward SMS advertising in general (object) or toward a specific advertisement (object). Hence, attitudes toward using SMS advertising have not been examined in detail. This is important particularly for investigating the effect of text message advertising in the customer-brand relationship. Thus, the first research objective addresses this point:

Objective 1: To identify the cognitive beliefs that influence students' attitudes toward using SMS advertising in the UK.

To address this research objective, five hypotheses (H1-H5) were developed. After analysing the data, it was found that characteristics of SMS advertising such as consumer control, importance of permission, incentives assessment, informativeness, and irritativeness have a significant relationship with consumers' attitude toward using SMS advertising. These findings are in line with previous studies i.e. Haghirian & Madlberger (2005) and Tsang et al. (2004). Hence, table 7-1 summarised the findings in relation to the first objective.

	Hypothesis	Results
H1	There is a positive relationship between informativeness and attitude toward using SMS advertising.	Supported
H2	There is a negative relationship between Irritateness and consumers' attitude toward using SMS advertising.	Supported
H3	There is a positive relationship between incentives assessments and attitude toward using SMS advertising.	Supported
H4	There is a negative relationship between perceived importance of permission and attitude toward using SMS advertising.	Supported
H5	There is a positive relationship between consumer control over SMS advertisements and attitude toward using SMS advertising.	Supported

Table 7-1 Antecedents of attitude toward using SMS advertising

After analysing the factors that influence attitude toward using SMS advertising, the study found that the content related characteristics of the text messages, namely, informativeness, incentives, and irritativeness have a significant relationship with attitude toward using SMS advertising. It is noteworthy that irritativeness could be attributed to both the content of the text messages and the use of SMS as a means to contact customers (communication medium).

These findings are in line with previous studies such as Ul Haq (2012), Haghirian & Madlberger (2005) and Tsang et al. (2004) who showed that the content of text messages sent by online brands could affect attitude toward SMS advertising. Hence, when text messages are informative and consumers' evaluate the included incentives positively, they tend to be more likely to form a positive attitude toward using SMS advertising. Yet, if text messages are perceived as irritants, customers may form a negative attitude toward using the brand's text message advertising. Therefore, advertisers need to specifically address the irritativeness of SMS messages to avoid sending annoying and overly manipulative messages. These results fully support hypotheses 1 to 3 (H1 to H3) of the thesis.

Moreover, it is shown that in addition to the content of the text messages, characteristics related to the nature of SMS advertising as a communication medium (i.e. consumers' control, irritativeness and importance of permission) have significant relationships with attitude toward using SMS advertising. These findings are in line with previous studies such as Aslam et al. (2016), Dickinger et al. (2004) and Ul Haq (2012) and the data analysis supports hypotheses H4 and H5. Thus, it is demonstrated that a higher perceived importance of permission has a negative effect on consumers' attitude toward SMS advertising. In other words, consumers who are more wary of being targeted with text marketing without their permission, show more negative attitudes toward SMS advertising. Furthermore, this thesis supports previous studies which proposed that the degree to which consumers are able to select the content, time, and amount of SMS advertisements has a positive impact on their attitude toward SMS advertising (Scharl et al., 2005). After determining the relationship between the characteristics of text messages and attitudes toward using SMS advertising, the next sub-section reviews the research findings with regard to the impact of each factor.

7-2-2 The impact of factors influencing attitude toward using SMS advertising

It is suggested that while the significance of identified relationships (T-statistics) is important, it is also imperative to identify the exogenous variables that contribute more to the variation of the endogenous factors. Therefore, those with the highest effect size (f^2) have the greatest contribution to the variation in attitudes toward using SMS advertising.

Incentives assessments was found to have the most significant relationship ($\beta=0.332$, $T=5.39$, $p < 0.01$) and effect size ($f^2= 0.13$) with attitude toward using SMS advertising (ATUSA). The second most influential factor was informativeness ($f^2= 0.089$), followed by importance of permission ($f^2=0.046$), irritativeness ($f^2=0.026$) and consumer control ($f^2=0.015$).

These findings contradict previous research that emphasized the importance of consumers' permission on attitude toward SMS advertising (Haghirian & Madlberger, 2005; Tsang et al., 2004). It should be noted that the consumers surveyed had already provided the studied brands with the required consent. Thus, this contradiction could be a result of the fact that the brands in this research had received respondents' permission before targeting them with SMS advertisements. Accordingly, the importance of permission plays a less significant role (as consumers had already agreed to take part in the campaign) in affecting ATUSA. The same logic can be applied in justifying the small effect size of irritativeness. To elaborate, as respondents in this research are selected among the students who were registered to receive text messages from the brands, the impact of consumers' sacrifices associated with SMS advertising (i.e. irritativeness) was reduced. Furthermore, the previous literature also found conflicting effects for irritativeness. While Luna Cortez & Royo Vela (2013) found it to be the most important factor influencing consumers' attitude toward SMS advertising; Xu (2006) and Keshtgary & Khajepour (2011) could not identify any significant relationship. Finally, the identified low impact of consumer control on attitude toward using SMS advertising is in line with previous studies such as Carrol et al. (2007). These findings are contrary to results identified by scholars such as Khasawneh & Shuhaiber (2013) and Merisavo et al. (2007), who could not find any relationship between consumer control and SMS advertising attitude.

In summary, the data analysis in this thesis showed that for students in the UK, assessment of the incentives included in text messages plays the most important role in forming their attitudes toward using SMS advertising. Furthermore, the role of informativeness is highlighted in this study and it was demonstrated that sending informative text messages could improve consumers' attitude toward using text messages. Additionally, it was shown that irritativeness, consumers' control, and importance of permission play a less significant role. It is noteworthy

that geographical locations and the regulations could impact the strength of the identified relationships (Merisavo et al., 2007).

7-2-3 Interrelationships between dimensions of CBBE for online brands

Numerous studies have examined brands in online or offline contexts; or compared them in such environments (i.e. Lee et al., 2011; Merrilees, 2016; Groeger & Buttle, 2014; Moran et al., 2014). However, scholars such as Keller (2016), Rana et al. (2015) and Wang et al. (2016) suggested that in terms of online brand equity, further research is required. Hence, by selecting pure digital brands that are active in daily deal sites, the present study sheds light on this gap. Accordingly, the second research objective was proposed:

Objective 2: To identify and examine the interrelationships between dimensions of CBBE for online brands.

To address this objective, extensive literature review was conducted to determine the dimensions of online brand equity. This thesis identified brand awareness, brand trust, brand value and brand loyalty as the CBBE dimensions of online brands. Then, using the hierarchy of effects model, hypotheses were proposed to explain the inter-relationships among the online brand equity dimensions in line with previous research such as Buil et al.,(2013a), Pike (2007) and Keller & Lehman (2003; 2006). Accordingly, H6 to H10 were developed.

	Hypothesis	Results
H6	There is a positive relationship between brand awareness and brand trust.	Supported
H7	There is a positive relationship between brand awareness and brand value.	Supported
H8	There is a positive relationship between brand trust and brand loyalty.	Supported
H9	There is a positive relationship between brand value and brand loyalty.	Supported
H10	There is a positive relationship between brand value and brand trust.	Supported

Table 7-2 Interrelationships between online CBBE dimensions

The results confirmed a positive and significant relationship between brand awareness and brand trust. While numerous past studies also support this relationship (Rios & Riquelme, 2008; Buil et al., 2013a), some could not find any links between brand awareness and brand trust (Rios & Riquelme, 2010). Hence, by validating this relationship for online brands operating as a loyalty program in daily deal sector, the present research further clarifies this relationship.

This study showed that brand awareness affects brand value. To explain this relationship, Baldauf et al. (2003) showed that recognising a brand's name leads to consumers' positive assessments of the value of the products as good value for money. In a similar vein, this thesis suggested that higher brand awareness positively affects consumers' assessments about the brand value. This is also in line with previous studies such as Buil et al. (2013a) who suggested that brand awareness could influence brand quality and brand associations.

The results showed a positive relationship between brand trust and brand loyalty hence, consumers who have a higher level of brand trust and believe that the brand fulfils its promises, are more likely to show attitudinal loyalty to the brand. This connection is in line with past studies such as Harris & Goode (2004), Ball et al. (2004) and Veloutsou (2015). Yet, it should be noted that brand trust showed a smaller effect on brand loyalty compared to brand value. This could be justified by referring to the nature of the online brands under investigation. As they are active in daily deal sites, it is understandable that brand value plays a more important role in creating brand loyalty.

The present study also showed that brand value has a positive and significant relationship with brand loyalty. Hence, consumers who associate higher value to the brand are more likely to show attitudinal loyalty. This is in line with studies such as Chai et al. (2015), Chiu et al. (2014), Rios & Riquelme (2008:2010), and Sirdeshmukh et al. (2002). Yet, it contradicts other studies

such as He et al. (2012) where brand trust was found to fully mediate the effect of brand value on brand loyalty.

Finally, this thesis showed that brand value has a positive and significant effect on brand trust. Hence, it is concluded that consumers who associate a higher value to a brand (i.e. believed the brand delivers good value or found it beneficial) are more likely to trust the brand. This positive relationship is similar to those of previous studies such as Harris & Goode (2004), He et al. (2012), Karjaluoto et al. (2012). However, it contradicts the findings from Rios & Riquelme (2010) who could not find any relationship between these two constructs. Thus, this study showed that consumers' perceptions about a brand's value correlate highly with their confidence in the brand; especially for online brands that are loyalty programs and active in daily deal sites. After clarifying the inter-relationships between dimensions of online brand equity, the next section, discusses the effects of SMS advertising on those dimensions.

7-2-4 SMS advertising and dimensions of online brand equity

One of the main contributions of this thesis is to clarify the effects of SMS advertising on the online brand equity dimensions. To achieve this goal, the present study examined the relationship between online brand equity dimensions and two factors in SMS advertising, namely, attitude toward using SMS advertising and incentives assessment. Attitude toward using SMS advertising is important because there are numerous studies showing that "attitude" is an important construct for determining the effect of advertisements (i.e. Mackenzie et al., 1986). Accordingly, the third research objective was formulated thus:

Objective 3: To determine the relationship between attitudes toward using SMS advertising and the CBBE dimensions of online brands.

This study took two steps to address this objective. First, using previous research, four dimensions of online brand equity were identified, namely, brand awareness, brand value,

brand trust, and brand loyalty. Secondly, two hypotheses were developed to demonstrate the potential effects of ATUSA on online brand equity dimensions.

	Hypothesis	Results
H11	There is a positive relationship between attitude toward using SMS advertising and brand awareness.	Supported
H12	There is a positive relationship between attitude toward using SMS advertising and brand trust.	Supported

Table 7-3 Relationship between ATUSA and CBBE

The present research found a positive relationship between ATUSA and brand awareness. In other words, consumers who show a positive attitude toward using SMS advertising are more likely to be aware of the online brand. Scholars such as Barwise & Strong (2002) and Smutkupt et al. (2012) supported the assertion that text message advertising increases brand awareness. In a similar way, this study confirmed the relationship between text message advertising and brand awareness; however, it is the first research to demonstrate that ATUSA plays a role in contributing to brand awareness. Yet, the small effect size of ATUSA on brand awareness shows that text message advertising has limited power in improving brand recognition and recall.

This research is the first to demonstrate the existence of a positive relationship between ATUSA and brand trust. Therefore, when consumers' have positive evaluations about using the text message advertising from a brand, they are more likely to trust that brand. Although, there is much evidence to support the link between a brand's communications and brand trust (i.e. Chinomona, 2016; Morgan & Hunt, 1994), this particular relationship (ATUSA → Brand trust) has not been examined prior to this study. It should be noted that despite the significant association between these two constructs, ATUSA showed a small effect size, which highlights the limited effect of text message advertising in influencing brand trust.

After examining the influence of ATUSA, this study examined the effect of incentives assessments on the identified dimensions of online brand equity. It is justifiable as one of the purposes of the selected online brands is to provide incentives and sales promotions to their consumers. Therefore, it is possible to assume that the incentives included in text message advertising could affect consumers' perceptions about such online brands. Thus, the fourth research objective was presented:

Objective 4: To determine the relationship between incentives assessments included in SMS advertising messages and the CBBE dimensions of online brands.

Accordingly, using the hierarchy of effects model, two hypotheses were developed (table 7-3) to investigate the relationships between incentives assessments and online brand equity dimensions. Before explaining the hypotheses, it should be noted that the incentives examined in this research are different from sales promotions and vouchers, which are often examined in the majority of previous studies. While past research mainly investigated the effects of a brand's sales promotions and vouchers on brand value, associations or loyalty (i.e. Buil et al., 2013a), the present thesis evaluated the influence of the third-party brands' incentives on the online brand (loyalty program).

	Hypothesis	Results
H13	There is a positive relationship between incentives assessments and brand value.	Supported
H14	There is a positive relationship between incentives assessments and brand loyalty.	Supported

Table 7-4 Relationship between incentives assessments and CBBE

The investigation of the relationship between incentives assessments and brand value demonstrates that there is a positive and significant correlation between these two constructs. Accordingly, it is possible to conclude that consumers' assessments of the incentives that are included in the text messages could influence the perceived value associated to the brand. This

finding is comparable to studies such as Yoon et al. (2014) who suggested that a brand's incentives could influence brand value and Buil et al. (2013a) who supported the relationship between sales promotions and brand associations. Similar to previous findings, it should be noted that while a significant link exists between incentives assessment and brand value, the associated effects of incentives assessments are small.

Incentives assessments emerged as an important predictor of brand loyalty. Consequently, the result of analysing this relationship suggest that when consumers evaluate the incentives (included in the text messages) more positively, they are more likely to demonstrate a higher attitudinal loyalty to the brand. This is in consonance with previous studies such as Zakaria et al. (2014) and Sirohi et al. (1998) who showed that brands could improve consumers' loyalty by providing them with incentives. In addition to a significant correlation, the effect size of incentives assessment on brand value was found to be the highest among the other predictors, namely, brand value and brand trust. Thus, the current data supports the recent reports from eMarketer (2016a) that consumers prefer SMS as a communication medium to receive loyalty offers and also highlights the significance of incentives assessments on brand loyalty.

In summary, the purpose of the present research was:

To explore whether any statistically significant relationships exist between SMS advertising and dimensions of online brand equity among university students in the UK.

To this end, four research objectives were developed and examined. This section briefly reviewed the results and findings of this study, and addressed the research objectives. This chapter is followed by an explanation of the contributions of this study to the branding and mobile marketing knowledge.

7-3 Contributions, limitations, and future studies

7-3-1 Theoretical Contribution

By fulfilling the research objectives, this study makes an original contribution to the current understanding of the relationships between SMS advertising and the dimensions of online brand equity in the UK.

The first contribution of this study relates to using expectancy value theory (Fishbein & Ajzen, 1975) in determining consumers' attitude toward using SMS advertising (ATUSA). Although previous studies have extensively used this theory in the context of SMS marketing, the majority of these studies were conducted before 2010 (i.e. Haghirian & Madlberger (2005), Tsang et al. (2004) and Xu (2006)). Therefore, as the nature of digital advertising in general and SMS advertising in particular has changed substantially over the years (i.e. using SMS advertising for entertaining purposes are replaced with using newer mobile applications), it is necessary to re-examine previously identified relationships (between antecedents of SMS advertising and ATUSA) to assess whether they still hold valid. Thus, this research contributes to text message advertising literature by re-examining and validating such identified relationships.

Varnali (2014) encouraged further research on the influence of SMS advertising on consumers' attitude. A review of the literature reveals that previous studies generally examined consumers' attitude toward text messages from two perspectives. Either from the perspective of attitudes toward SMS advertising in general (attitude toward an object) (Haghirian & Madlberger 2005; Tsang et al., 2004; Ul Haq, 2012) or attitude toward a specific advertisement (attitude toward an object) (Drossos et al., 2007; Varnali, 2014). However, the present study focused on attitudes toward using SMS advertising (attitude toward act). This is interesting because the purpose of the selected brands is to provide consumers with desirable information and

incentives as well as promote such brands via SMS advertising to improve both consumers-brand relationship and brand loyalty. Hence, measuring consumers' attitude toward using SMS advertising is deemed as a better construct to measure the evaluations about staying connected with brands via text message advertising. Furthermore, it is more effective in demonstrating the accumulated effect of brands' text message advertising activities in encouraging consumers to stay in contact with the brand. Therefore, the findings from this research highlight the factors that are significantly correlated with or have the highest effect on attitudes toward using SMS advertising.

In addition to SMS advertising, this study also contributes to brand equity literature by examining the dimensions of consumer based brand equity in a pure online context. Despite the fact that past research has compared online and offline contexts in various areas, there are still gaps in the brand equity literature with regard to online brands (Keller, 2016; Rana et al., 2015; Swaminathan, 2016). For example, Keller (2016, pp 11-13) called for further research to "understand pure digital brands" or "how to manage customer relationship" in this context. Therefore, this study makes a significant contribution to the branding literature by demonstrating the impact of the inter-relationships between dimensions of CBBE for specified online brands (using hierarchy of effects model).

One of the identified gaps in the literature was in relation to the relationship between brand trust, brand value and brand loyalty. While some studies considered brand trust as the main predictor for brand loyalty (El-Manstrly, 2016), the findings from this research align more with Rios & Riquelme (2008) who found brand value as a better contributor to brand loyalty. This higher effect of brand value is thus attributed to the nature and purpose of the online brands (loyalty programs that are active in daily deal sites). Therefore, this research shows that for the specified online brands, brand value has a higher impact on brand loyalty compared to brand trust although part of the effect of brand value is mediated via brand trust.

Despite the rapid growth in competition and the daily deal sector during the last five years (Statistica, 2016), the dimensions of online brand equity in this sector have seldom been studied. Hence, this thesis fills a gap in the knowledge on online brand equity by conducting the research on online brands that are active in daily deal sites sector.

The application of the hierarchy of effects model (Lavidge & Steiner, 1961) in developing a new model and demonstrating the relationship between SMS advertising and dimensions of online brand equity is another contribution of this research. While numerous studies have used hierarchy of effects model to demonstrate the relationship between advertising and brand equity (as well as brand building) (Buil et al., 2013 b; Hutter et al., 2013; Smith et al., 2008; Yoo et al., 2004), this study is the first to apply this model to show the connections between SMS advertising and brand equity dimensions. Consequently, the effects of two factors namely, attitude toward using SMS advertising and incentives assessments on CBBE of online brands are clearly demonstrated.

Furthermore, this thesis proves that attitude toward using SMS advertising can influence brand awareness. While previous research such as Barwise & Strong (2002), Smutkupt et al. (2011; 2012) and Trappey & Woodside, (2005) showed that consumers who receive SMS marketing messages show higher brand awareness, this research focused on the relationship between attitude toward using SMS advertising (ATUSA) and brand awareness. Subsequently, the present study empirically examined this relationship and showed that consumers' attitude toward using text message advertising and brand awareness are positively related however, the effect of ATUSA on brand awareness was shown to be small.

This study demonstrates that attitude toward using SMS advertising has a positive effect on brand trust. This is in line with past studies where brand's communications has been shown to influence consumers' trust (Ball et al., 2004; Chinomona, 2016; Morgan & Hunt, 1994).

However, in the context of SMS advertising, this relationship has scarcely been examined. Thus, one of the contributions of this thesis is demonstrating that when consumers have a positive view toward using advertising text messages from a brand (i.e. as they like the included incentives or information), they are more likely to trust that brand.

Another important contribution of this study is to clarify the role of consumers' assessments of the incentives (included in the text messages) on brand value. Previous studies such as Buil et al. (2013a) distinguished between monetary and non-monetary sales promotions and showed that the former (monetary) can result in negative perceptions about the brand quality. However, they proved that the latter is positively related to brand perceptions. Despite distinguishing between monetary and non-monetary promotions in previous research, in the context of this thesis it is maintained that monetary sales promotions do not carry any negatively effect on the brand. This is justifiable because firstly, unlike the majority of previous research, the monetary sales promotions do not reduce the price of the service for the selected brands (they are free to use). Furthermore, the incentives in such text messages generally come from a third-party brand thus; they do not have any negative effects on the online brand's image. Secondly, there are studies that show that monetary sales promotion are very common in the online context, so they do not necessarily damage the brand image (Crespo-Almendros & Barrio-Garcia, 2016). Subsequently, it is demonstrated that consumers' positive evaluations of the incentives included in the brand's text messages can positively influence the brand value. This is justifiable because when consumers perceive some forms of benefits from participating in a brand's communication campaign (SMS advertising in this research), they are more likely to associate value to that brand.

One of the important contributions of this thesis is related to the influence of consumers' assessments of the incentives (embedded in text messages) on online brand loyalty. This finding is in line with prior research that found a positive relationship between incentives (such

as sales promotions and rebates) and brand loyalty (Zakaria et al., 2014). However, two points are distinctive regarding the link between incentives assessment and brand loyalty as demonstrated in this research. Firstly, the incentives in this research are generally from third-party brands while in previous studies vastly focused on the brand's own sales promotions. Secondly, incentives are delivered via text messages in this thesis and it measures the effect of consumers' evaluation of such text messages on brand loyalty. Accordingly, it was found that consumers' assessment of the incentives presented in SMS advertising messages improve attitudinal loyalty toward online brands. This relationship is statistically acceptable and incentives assessment was demonstrated to have a significant effect on brand loyalty. Among three variables associated with brand loyalty, incentives assessments showed the highest influence on brand loyalty. Furthermore, part of the effect between incentives assessment on brand loyalty was mediated via brand value.

7-3-2 Contribution to practice

The findings from this research are also important for practitioners of SMS advertising and brand managers. As this thesis clarifies the relationship between SMS advertising and online brand equity, mobile marketers could use the results to improve their SMS advertising campaigns; they could also focus on the aspects of text message advertising that play a more important role in creating online brand equity. Furthermore, brand managers can use the findings to improve the specific online brand equity dimensions. Overall, the managerial implications of this research can be divided into two parts:

Firstly, this research empirically examined and demonstrated the relationship between attitude toward using SMS advertising in the UK and various text messages characteristics (i.e. informativeness, irritativeness, consumer control, importance of permission, and incentives

assessments). These results can help mobile marketers in developing more successful SMS advertising campaigns by accounting for the effect of these important characteristics.

To elaborate the findings, it should be noted that the first and most important factor that could influence consumers' attitude toward using SMS advertising was found to be incentives assessments. Hence, mobile marketers should ensure to target respondents with beneficial, attractive, and interesting incentives because if consumers affirm the perceived incentives, they are likely to show favourable attitude toward using SMS advertising. In contrast, if they find incentives irrelevant, unattractive or spams and they assess the incentives as poor or unattractive, they are less likely to form positive attitude toward using SMS advertising.

One of the interesting findings of this research for mobile marketers is in relation to the factors with the highest effect on ATUSA. It is demonstrated that incentives assessments and informativeness have the highest effects followed by irritativeness, importance of permission and consumer control. As it is clear from the results, the benefits of using SMS advertising, namely; incentives assessments and informativeness, have higher effects on consumers' attitude toward using text message advertising than the associated risks such as irritativeness, importance of permission and consumer control. This can be attributed to the fact that the online brands in this study follow the regulations in the UK and only target the consumers who have given explicit permission for SMS advertising. Also online brands allow consumers to opt out easily (as evident from the advertising text messages). Thus, such policies (to allow the respondents to opt out) can be an explanation for the reduced effects of sacrifices associated with SMS advertising (i.e. importance of permission and irritativeness) and increased effect of associated benefits. The implication of this finding for SMS marketing practitioners is that once consumers' have opted in to SMS advertising campaigns, the benefits of using text message advertising have higher impact on ATUSA, then perceived control, the importance of

permission or irritativeness. Yet, it is possible that sending too many text messages, irrelevant messages, or irritative contents could change the strength of these relationships.

Secondly, the model demonstrated that the characteristics of SMS advertising play a role in improving each dimension of online brand equity. This finding enables online brand managers to make informed decisions about deploying SMS advertising as means of improving specific brand equity dimensions. Consequently, there are implications for online loyalty brands that are active in daily deal sites.

The outcomes of this thesis demonstrate that brand managers can improve brand awareness, brand trust, brand value, and brand loyalty using SMS advertising. Yet, except for the incentives assessments and brand loyalty relationship, which has a moderate effect size, SMS advertising has a small effect on online CBBE dimensions. Therefore, this section further explains these relationships and possible contributions to practice:

- Incentives assessments and brand loyalty: The present study demonstrated that consumers' assessment of the incentives included in text message advertisements has a direct link with their attitudinal loyalty to the brand. Among the predictors of brand loyalty identified in this model, incentives assessment showed the highest effect on brand loyalty. Hence, this finding has two implications for mobile marketers. First, they can use text message advertisements to improve brand loyalty. Second, companies should pay close attention in selecting relevant, attractive, and beneficial incentives because the assessments of such incentives by target customers directly impacts their attitudinal loyalty to brands. This finding is in line with recent reports by eMarketer (2016 a), in which text messages were identified as the favourite communication medium to receive loyalty programs. Hence, this finding shows that proper application

of SMS advertising and including interesting incentives could significantly improve customers' loyalty.

- Incentives assessment and brand value. This finding also shows that brand managers could use text message advertising to improve consumers' perceptions about the brand value. Hence, by including attractive incentives in text messages, the loyalty programs (that are active in daily deal sites) can improve their perceive value. Yet, this effect is small and this thesis shows that the power of SMS advertising to influence brand value is limited. Therefore, brand managers should use SMS advertising in conjunction with other communication mediums to generate a more powerful effect on brand value.
- ATUSA and brand awareness. The relationship between attitude toward using SMS advertising and brand awareness demonstrates the potential of text message advertising to increase consumers' awareness about the brands. Thus, brand managers could improve consumers' recognition and recall of online brands by enhancing consumers' attitude toward using SMS advertising.
- ATUSA and brand trust. This research demonstrates another important relationship between ATUSA and brand trust. This link shows that when consumers have a positive attitude toward using text message advertising from a brand, they are more likely to trust that brand. Brand managers could use this finding to enhance the bond between the brand and its consumers using text message advertising. However, similar to brand awareness, the effect of ATUSA on brand trust is also small. Therefore, it is possible to conclude that there are other factors (such as brand value and brand awareness) that have a more powerful effect on brand trust. Hence, to improve online brand trust, brands should use text message advertising in collaboration with other marketing practices to yield better outcomes.

Finally, the findings could have implications for online brands that are active in daily deal sites. As the interrelationships between the dimensions of online brand equity for such websites have scarcely been examined, the results of this thesis could shed light on the areas such as:

- Brand awareness and brand trust. While the relationship between brand awareness and brand trust has been studied extensively in offline contexts, this research confirms this relationship in a new context (loyalty programs operating in daily deal site market). Hence, the outcomes show that online brand managers operating in this market could improve brand trust by increasing brand awareness. Despite previous studies such as Rios & Riquelme (2010) who could not confirm this link.
- Brand awareness and brand value. This finding is particularly important for the online brands operating in daily deal sites. It shows that consumers who have higher awareness about the brand are more likely to associate value to the brand, compared to their counterparts with lower levels of brand recall and recognition. Thus, the outcomes of the analysis allows brand managers in recognising brand awareness as an antecedent to brand value. Therefore, it is essential for loyalty programs (active in daily deal sites) to enhance brand awareness in order to improve brand value.
- Brand value and brand trust in connection to brand loyalty. One of the most important implications of the developed model for brand managers is the interrelationships between brand value and brand trust in connection to brand loyalty. This study found that for online brands operating in daily deal sites, brand value has a higher effect on brand loyalty compared to brand trust. Therefore, brand managers should emphasize on creating beneficial, worthwhile, and valuable relationships with their customers to gain their loyalty. Additionally, it should be noted that, despite the small effect size of brand trust on brand loyalty, these two constructs are positively linked. Hence,

marketing managers should not overlook this relationship simply due to its lower effect size.

- Brand value and brand trust. The relationship between brand value and brand trust is proved by previous studies (in various context) and this research also supports this link in the context of online brands. The findings in this thesis contradicts with Rios & Riquelme (2010) who could not find any relationship between brand trust and brand value. Thus, it is possible to conclude that for online loyalty programs, marketing managers could improve the consumer's trust by building higher value for the online brand.
- In summary, the results of this study showed that text marketing should be used conjoined with other marketing communication techniques, because its effect on the online brand equity dimensions are limited (except for the relationship between incentives assessments and brand loyalty). In other words, while text marketing can help brand managers in improving specific dimensions of online brand equity, its power to effect those dimensions is limited. The next section explains the limitation of this research and identifies possible avenues for future studies

7-3-3 Research Limitations and Future Research

Although this study intended to address the research objectives as precisely as possible to develop a generalised model, there are some limitations due to various constrains including budget and time.

One of the limitations of this thesis is the adoption of a convenience sampling approach. While some studies show that convenience sampling is acceptable for homogeneous populations such as student samples (Homburg & Koschate, 2004 cited in Matzler et al., 2006), researchers must be cautious about the generalizability of such findings. Since students as a demographic group

are the more likely to adopt new mobile technologies and smartphones, they are likely to show different attitudes towards SMS advertising than other less tech-savvy demographic groups. Furthermore, because most of the student fell within the 18-25 age range, a multi-group analysis was impossible which limited the ability to check the effect of age on the relationships modelled. Future studies could add value by comparing the responses from different age groups and examining the strength of the relationships for each age clusters.

Additionally, it is possible that a similar research carried out in other countries may yield different findings due to factors such as the regulations of mobile advertising, the prevalence of mobile advertising and smart phones and cultural differences. Hence, future studies could undertake a comparative study including other geographical and cultural contexts to assess the generalizability of the relationships identified in this study.

To determine the effect of SMS advertising on CBBE of online brands, this study only sampled respondents who had participated in a brand's SMS advertising campaign. The rationale behind this sampling frame was that respondents who are exposed to a brand's text message advertisements are more likely to show the effect of SMS advertising on the dimensions of online brand equity. However, limiting the sample group to such customers could potentially affect the strength of the identified relationships i.e. the higher effect of informativeness and incentives assessments on ATUSA. Thus, future studies could further investigate the identified relationships to compare the findings from prior recipients of SMS advertisements to findings from non-recipients.

The research focused on two online brands that provide special offers and information to their consumers by various means of communication including SMS advertising (loyalty programs). Hence, it is probable that the specific characteristics of such online brands/ loyalty programs could affect the strength and significance of the identified relationships in this thesis. Therefore,

future research could examine the proposed model with different brands that are active in this market sector (daily deal sites) as well as other e-commerce markets such as online restaurants or retailers.

One of the contributions of this study was in relation to the inter-relationships and the effect sizes between the identified dimensions of online brand equity. For instance, the presented model demonstrates that brand value has a higher effect on brand loyalty compared to brand trust. Yet, the fact that the selected online brands were the loyalty programs for the telecommunication companies could have some effects on the significance of these relationships i.e. between brand value and brand trust. Hence, future studies should further examine this relationship i.e. in situations where consumers' are not participants of the loyalty programs.

Throughout the research, it was shown that the purpose of this study was to examine the possible relationships between SMS advertising and the dimensions of online brand equity. While this thesis focused on these relationships, other factors that could influence the dimensions of online brand equity are missing in the model. For example, factors that influence brand awareness, brand value, brand trust and brand loyalty for online brands are not comprehensively included in this model. These variables were excluded in order to prevent the model from getting over-complicated and to make the survey feasible. However, excluding these factors lead to lower R squared and limits predictive power for dimensions of online brand equity. Therefore, future studies can investigate this model when such components are present i.e. investigating the relationship between attitude toward using SMS advertisement and brand trust when antecedents of brand trust are presented in the model.

This study is focused on the influence of SMS advertising messages sent to consumers' mobile phones and investigates the influence of such messages on online brand equity dimensions.

Future studies can investigate the effect of using other forms of marketing messages such as mobile display advertisements or direct marketing messages i.e. email marketing on the dimensions of online brand equity.

The use of Likert-scales in this study could raise questions about adequacy. Jamieson (2004) for example argued that conducting statistical data analysis using measures obtained from Likert scales can be misleading because:

- 1- The interval between values in Likert-scale are assumed to be equal while they are ranked orders and there is no evidence of equal intervals.
- 2- Using mean for ordinal data is inappropriate.
- 3- Treating ordinal scales similar to interval scales have been controversial.
- 4- Data sets obtained from Likert-scales are often skewed and polarised.

Therefore, application of Likert-scale to measure the constructs and to conduct the statistical analysis can be restrictive, as the constructs are narrowed and limited to the corresponding Likert measures.

However, Lee & Soutar (2010) showed while respondents do not consider Likert-scales as intervals, it is unlikely that such considerations significantly affect the results. With the intention to reduce the effect of such limitations, this study only adopted the measures that had been proven valid and reliable in previous research.

In addition, after collecting data, its distribution was analysed to check whether it follows a normal distribution. Statistical analysis showed that the data is not parametric. This is in line with previous studies that suggested the data collected using Likert scales has a tendency of not following normal distributions (Jamieson, 2004; Lantz, 2013; Lee & Soutar, 2010). Accordingly non-parametric data analysis approaches were applied (PLS-SEM) to investigate the relationships between the constructs.

As mentioned earlier, one of the main reasons for choosing PLS-SEM techniques was the lack of normality distribution among the collected data. This logic has been argued by scholars such as Norman (2010) who dismissed any influential effects of normality assumptions violation on outcomes of parametric statistics. They proposed that such statistics are robust to normality assumptions violation and they do not lead to wrong answers. Despite such propositions, Fayers (2011) showed that using parametric statistics such as T-test and ANOVA when data is not normally distributed, can lead to distortion of p-values. Therefore, he encouraged the use of non-parametric analysis when there is a doubt about the normality of the data.

Common method bias in this study was statistically examined using Herman-one-factor test. Methods recommended by authors such as Lindell & Whitney (2001), Malhotra et al. (2007), Williams et al. (2010) and Richardson et al. (2009) require using marker variables in order to detect any common method variance in the data set. While using marker variables is endorsed by some scholars, it was not applied to this study due to the following limitations. Adding multiple marker variables to the questionnaire survey, which has no theoretical relationships with other constructs, would make the questionnaire longer. This, in turn, could make respondents impatient and lead to response bias. Thus, while some studies suggested that using marker variables can increase the chance of detecting possible CMV, in this thesis, marker variables were not applied due to their potential negative effects on responses. However, it is suggested that the influence of CMV in results of this research is limited, because; firstly, Herman-one- factor is in an acceptable range. Secondly, following actions were taken as suggested by Podsakoff et al. (2003):

- (i) At the questionnaire design stage, some of the scales measuring SMS advertising were inter-mixed.
- (ii) Before conducting the survey, the purpose of the questionnaire was clearly explained.

- (iii) Assuring consumers about their anonymity to avoid social acceptability lenience and acquiescence bias.

This thesis adopted a multi-item scales approach – wherein multiple observed variables are used—to measure the constructs proposed in the theoretical framework chapter. This approach is adopted because it is superior to the single-item approach in reducing measurement error, misinterpretations, and bias (Rattray and Jones, 2007). However, using multi-items approach could result in longer questionnaire surveys. One may argue that longer questionnaire surveys would increase the respondents' fatigue and acquiescence bias (Galesic & Bosnjak, 2009). Hence, to address acquiescence bias this thesis took the following actions; first, the questionnaire presented some reverse-coded scales as suggested by Harvey, Billings, & Nilan (1985). Secondly, the thesis follows Podsakoff's et al. (2003) recommendation by:

- (i) Avoiding bio-polar scale values (i.e. -3 to 3) and including the verbal meaning of each scale (i.e. strongly agree- strongly disagree).
- (ii) Separating the predictor and criterion scales. For instance, the scales in relation to SMS advertising were offered earlier in the questionnaire. Then the questionnaire presented the scales about the respondents' demographics (in section B) and finally—in sections C—the scales about the specified brand equity dimensions were delivered.

The incentives investigated in this study included sales promotions and vouchers from third-party brands. In such situations, SMS advertising may not negatively impact consumers' perceptions because the purpose of such advertisements is to provide customers with benefits. However, when customers receive a monetary incentive directly from a restaurant for instance, it may negatively affect their perceived quality of that restaurant (Buil et al., 2013a). Thus,

more research is required to understand the differences in consumers' perceptions when they receive direct or indirect incentives from brands.

While this study examined the influence of sales promotions from third-party brands, future studies could focus on the effect of direct SMS advertising and promotions by brands.

Future studies can focus on identifying the features and characteristics of the incentives (included in text messages advertising) that influence consumers' positive assessments. For example, while the majority of the incentives in this study were coupons from third party brands, future studies could investigate whether monetary or non-monetary incentives have significantly different effects on SMS advertising incentives assessments. Although such relationships have been previously studied (i.e. Dickinger & Kleijnen, 2008), it should be noted that technology and mobile communications are evolving. Therefore, past studies need to be re-examined, to ascertain if the hypotheses and models developed are still valid in the new context. For instance, while SMS advertising offers incentives such as free minutes, coupons, ringtones and airtime (Chowdhury et al., 2016; Tsang et al., 2004), with new IT advancements and smartphone capabilities consumers may prefer other previously unpopular incentives like free internet data . Similarly, marketing practitioners need to identify what factors affect the attractiveness of the incentives included in SMS advertising in order to focus on improving those features.

The present thesis used the hierarchy of effects model to demonstrate the correlations between SMS advertising and dimensions of online brand equity. Future research could use other theories, such as the theory of planned behaviour (Ajzen, 1991), to determine the influence of SMS advertising on attitude toward the brand and consumers' behavioural intentions. Similarly, the demonstrated relationships in this thesis could be re-evaluated using other

communication media like display advertising to establish the effect of SMS advertising on brand equity.

7-4 Overall conclusion

In this chapter, the summary of the content and logic of the overall thesis was presented. This was achieved by briefly reviewing the previous six chapters. The first chapter was the introduction, in which the justifications behind conducting this research were presented. The literature review and theoretical framework constituted the second and third chapters of this study; they reviewed the previous research in SMS advertising and online brand equity dimensions and accordingly the research hypotheses were developed. Then, in the fourth chapter, the research methodology was explained and the philosophical stance of the researcher was clarified. At this stage, the decisions about sample framework, online brands to study, and questionnaire designs were made. The fifth chapter, the data analysis chapter, focused on the analysis of the collected data and testing hypotheses. In the discussion chapter, the findings and contributions of this thesis were highlighted in the context of the previous literature. The seventh and final chapter of the thesis reviewed the research objectives in the introduction chapter and addressed them. Also, the theoretical and practical contributions of this study were further explained and research limitations and new avenues for future research were presented.

The findings from this research demonstrate that SMS advertising influences online brand equity. This influence can be through either by consumers' attitude toward using SMS advertising or by incentives assessments. It is highlighted that SMS advertising can affect the dimensions of online brand equity and subsequently change the value of brands in consumers' minds. These findings support previous studies that demonstrated the influence of advertisements and SMS advertising in particular on brands and brand equity. Furthermore, contributions are made to mobile marketing and brand management theories by showing the

avenues that mobile advertisements and brand equity can correlate and the strength of such relationships in the UK.

APPENDIX I - MISSING VALUES

	N	Missing	
		Count	Percent
SMSFrequency	303	8	2.6
INF1	311	0	0
INF2	309	2	0.6
INF3	306	5	1.6
IRR1	311	0	0
IRR2	311	0	0
IRR3	308	3	1
IRR4	306	5	1.6
IRR5	308	3	1
IRR6	296	15	4.8
INC1	311	0	0
INC2	311	0	0
INC3	311	0	0
CNTRL1	305	6	1.9
CNTRL2	311	0	0
CNTRL3	308	3	1
PRM1	304	7	2.3
PRM2	310	1	0.3
PRM3	311	0	0

	N	Missing	
		Count	Percent
ATUSA1	311	0	0
ATUSA2	311	0	0
ATUSA3	308	3	1
ATUSA4	307	4	1.3
OPENsmsno	302	9	2.9
OPENresponse	306	5	1.6
OPENparticipate	305	6	1.9
AW1	311	0	0
AW2	311	0	0
AW3	311	0	0
AW4	308	3	1
Trust1	308	3	1
Trust2	308	3	1
Trust3	306	5	1.6
Trust4	310	1	0.3
Trust5	308	3	1
Trust6	310	1	0.3
VA1	311	0	0
VA2	311	0	0
VA3	308	3	1

BL1	311	0	0
BL2	311	0	0
BL3	311	0	0
BL4	309	2	0.6
BL5	311	0	0
BL6	311	0	0
BL7	307	4	1.3
BL8	311	0	0
Mobnet	311	0	0
SMSreceiving	311	0	0

APPENDIX II - NORMALITY TEST KORMOGOROV

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Frequency of receiving SMS messages	0.284	311	0.00	0.857	311	0.00
SMS messages sent by mobile networks provide information I need	0.188	311	0.00	0.907	311	0.00
Through advertising messages sent by my X mobile network via the mobile phoe I receive timely information	0.202	311	0.00	0.927	311	0.00
Though advertising messages via mobile phone i receive exclusive information	0.172	311	0.00	0.925	311	0.00
I find SMS advertising messages from X distracting	0.187	311	0.00	0.94	311	0.00
I find SMS advertising messages from X disturbing	0.159	311	0.00	0.944	311	0.00
I find SMS advertising messages from X forced	0.189	311	0.00	0.939	311	0.00
I find SMS advertising messages from X interfering	0.138	311	0.00	0.948	311	0.00
I find SMS advertising messages intrusive	0.188	311	0.00	0.937	311	0.00
I find SMS advertising messages Obtrusive	0.219	311	0.00	0.929	311	0.00
I find SMS promotions sent from X attractive	0.242	311	0.00	0.874	311	0.00
I find SMS promotions sent from X a good buy	0.201	311	0.00	0.905	311	0.00
I find SMS promotions sent from X extremely fair	0.249	311	0.00	0.885	311	0.00
I am in control over the amount of advertising SMS messages I receive from X	0.174	311	0.00	0.904	311	0.00
I can choose the types of the messages I receive from X (text messages, picture messages or video messsages)	0.231	311	0.00	0.866	311	0.00
I can control when I receive SMS advertisements on my phone from X	0.156	311	0.00	0.932	311	0.00
Generally I would only be prepared to receive SMS advertisements if I had provided permission	0.204	311	0.00	0.938	311	0.00
Generally it is important for me that I can control the permission to receive SMS advertising	0.17	311	0.00	0.934	311	0.00

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
It is important for me that I can refuse to receive SMS advertising generally	0.177	311	0.00	0.918	311	0.00
Using SMS advertising is a good idea	0.185	311	0.00	0.927	311	0.00
Using SMS advertising is a wise idea	0.191	311	0.00	0.924	311	0.00
I find receiving advertising messages via the mobile phone positive	0.143	311	0.00	0.944	311	0.00
I appreciate receiving SMS advertising messages	0.154	311	0.00	0.937	311	0.00
Age range	0.419	311	0.00	0.52	311	0.00
How many sms marketing messages, which advertised a product or service, did you receive on you mobile last month?	0.158	311	0.00	0.91	311	0.00
How many times have you responded to SMS marketing messages by replying to the messages (e.g. ordering a product or seervice or visiting a relevant website) during the last six months	0.5	311	0.00	0.366	311	0.00
How many times have you participated in SMS sweepstakes or competitions during the last six months	0.474	311	0.00	0.204	311	0.00
I know what X looks like	0.213	311	0.00	0.927	311	0.00
I can recognize X among other competing services	0.239	311	0.00	0.923	311	0.00
I can quickly recall the name of X	0.183	311	0.00	0.942	311	0.00
I am aware of X	0.209	311	0.00	0.925	311	0.00
I feel safe in my transactions with X	0.224	311	0.00	0.875	311	0.00
I trust X to keep my personal information safe	0.231	311	0.00	0.875	311	0.00
X has my confidence	0.233	311	0.00	0.878	311	0.00
I think I can have confidence in the promises X make	0.234	311	0.00	0.877	311	0.00
I think promises offered by X is sincere and honest	0.259	311	0.00	0.87	311	0.00
X doesnt make false statements	0.29	311	0.00	0.853	311	0.00
compared to the time I need to spend, the use of X is worthwile to me	0.248	311	0.00	0.863	311	0.00
Overall the use of X delivers me a good value	0.248	311	0.00	0.875	311	0.00

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Compared to the effort I need to put in, the use of X application is beneficial to me	0.266	311	0.00	0.867	311	0.00
Even if another brand has same features as in X I would prefer to use X	0.241	311	0.00	0.879	311	0.00
I encourage friend to do business with X	0.234	311	0.00	0.86	311	0.00
I say positive things about X to other people	0.234	311	0.00	0.872	311	0.00
I will use X in the next few years	0.215	311	0.00	0.886	311	0.00
I would recommend X to someone else	0.229	311	0.00	0.876	311	0.00
It is unlikely I use X again	0.247	311	0.00	0.871	311	0.00
I consider myself to be loyal to X	0.242	311	0.00	0.873	311	0.00
X would be my first choice	0.268	311	0.00	0.86	311	0.00

APPENDIX III - SKEWNESS AND KURTOSIS

	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
Frequency of receiving SMS messages	-0.437	0.138	-0.262	0.276
SMS messages sent by mobile networks provide information I need	-0.37	0.138	-0.563	0.276
Through advertising messages sent by my X mobile network via the mobile phone I receive timely information	-0.341	0.138	0.132	0.276
Though advertising messages via mobile phone I receive exclusive information	-0.269	0.138	-0.717	0.276
I find SMS advertising messages from X distracting	-0.299	0.138	-0.108	0.276
I find SMS advertising messages from X disturbing	0.045	0.138	-0.423	0.276
I find SMS advertising messages from X forced	-0.288	0.138	-0.192	0.276
I find SMS advertising messages from X interfering	-0.135	0.138	-0.239	0.276
I find SMS advertising messages intrusive	0.288	0.138	-0.271	0.276
I find SMS advertising messages Obtrusive	0.091	0.138	0.378	0.276
I find SMS promotions sent from X a good buy	-0.502	0.138	-0.391	0.276
I find SMS promotions sent from X extremely fair	-0.731	0.138	0.241	0.276
I find SMS promotions sent from X valuable	-0.148	0.138	-0.88	0.276
I am in control over the amount of advertising SMS messages I receive from X	-0.038	0.138	-1.164	0.276

I can choose the types of the messages I receive from X (text messages, picture messages or video messages)	0.272	0.138	-1.033	0.276
I can control when I receive SMS advertisements on my phone from X	0.229	0.138	-0.319	0.276
Generally I would only be prepared to receive SMS advertisements if I had provided permission	-0.386	0.138	-0.294	0.276
Generally it is important for me that I can control the permission to receive SMS advertising	-0.424	0.138	-0.13	0.276
It is important for me that I can refuse to receive SMS advertising generally	-0.658	0.138	0.071	0.276
Using SMS advertising is a good idea	-0.414	0.138	-0.101	0.276
Using SMS advertising is a wise idea	-0.458	0.138	-0.089	0.276
I find receiving advertising messages via the mobile phone positive	-0.018	0.138	-0.532	0.276
I appreciate receiving SMS advertising messages	0.054	0.138	-0.29	0.276
Age range	3.264	0.138	14.185	0.276
How many sms marketing messages, which advertised a product or service, did you receive on you mobile last month?	0.92	0.138	0.351	0.276
How many times have you responded to SMS marketing messages by replying to the messages (e.g. ordering a product or seervice or visiting a relevant website) during the last six months	3.715	0.138	14.811	0.276
How many times have you participated in SMS sweepstakes or competitions during the last six months	7.388	0.138	60.964	0.276

I know what X looks like	-0.268	0.138	-0.711	0.276
I can recognize X among other competing services	-0.359	0.138	-0.655	0.276
I can quickly recall the name of X	-0.199	0.138	-0.684	0.276
I am aware of X	-0.325	0.138	-0.754	0.276
I feel safe in my transactions with X	-0.009	0.138	-0.62	0.276
I trust X to keep my personal information safe	-0.062	0.138	-0.718	0.276
X has my confidence	0.22	0.138	-0.769	0.276
I think I can have confidence in the promises X make	0.221	0.138	-0.742	0.276
I think promises offered by X is sincere and honest	0.23	0.138	-0.546	0.276
X doesn't make false statements	0.362	0.138	-0.241	0.276
compared to the time I need to spend, the use of X is worthwhile to me	0.226	0.138	-0.544	0.276
Compared to the effort I need to put in, the use of X application is beneficial to me	0.291	0.138	-0.571	0.276
Overall the use of X delivers me a good value	0.214	0.138	-0.683	0.276
Even if another brand has same features as in X I would prefer to use X	0.365	0.138	-0.207	0.276
I encourage friend to do business with X	0.202	0.138	-0.656	0.276
I say positive things about X to other people	0.211	0.138	-0.681	0.276
I will use X in the next few years	-0.107	0.138	0.194	0.276
I would recommend X to someone else	0.116	0.138	-0.693	0.276
It is unlikely I use X again	0.499	0.138	-0.452	0.276
I consider myself to be loyal to X	0.219	0.138	-0.621	0.276
X would be my first choice	0.405	0.138	-0.445	0.276

APPENDIX IV - CROSS LOADINGS

	ATUSA	Awareness	Brand Loyalty	Consumer Control	Incentives assessment	Informativeness	Irritiveness	Permission Importance	Trust	Value
ATUSA1	0.906	0.28	0.258	0.349	0.464	0.589	-0.338	-0.174	0.4	0.369
ATUSA2	0.833	0.25	0.249	0.369	0.429	0.49	-0.406	-0.164	0.282	0.293
ATUSA3	0.876	0.268	0.27	0.318	0.511	0.506	-0.428	-0.056	0.307	0.218
ATUSA4	0.815	0.19	0.292	0.383	0.599	0.55	-0.495	-0.067	0.25	0.262
AW1	0.286	0.931	0.311	0.194	0.153	0.124	-0.073	0.019	0.386	0.296
AW3	0.242	0.945	0.336	0.144	0.155	0.064	-0.018	0.047	0.423	0.369
AW4	0.282	0.932	0.261	0.086	0.099	0.069	-0.026	0.019	0.405	0.334
BL1	0.216	0.249	0.76	0.194	0.497	0.182	-0.117	0.071	0.45	0.484
BL3	0.247	0.208	0.833	0.272	0.502	0.238	-0.247	0.083	0.371	0.414
BL4	0.243	0.349	0.857	0.257	0.455	0.204	-0.149	0.116	0.508	0.508
BL5	0.211	0.225	0.783	0.286	0.426	0.16	-0.176	0.125	0.387	0.517
BL6	0.264	0.394	0.928	0.241	0.49	0.19	-0.182	0.129	0.563	0.624
BL7	0.298	0.197	0.751	0.287	0.434	0.205	-0.285	0.073	0.409	0.482
BL8	0.315	0.218	0.841	0.261	0.418	0.285	-0.247	0.095	0.552	0.614
CNTRL1	0.43	0.088	0.263	0.901	0.385	0.474	-0.338	-0.009	0.102	0.25
CNTRL2	0.32	0.099	0.299	0.862	0.296	0.377	-0.252	0.086	0.21	0.3
CNTRL3	0.329	0.225	0.267	0.893	0.313	0.499	-0.262	0.107	0.204	0.37
INC1	0.45	0.197	0.427	0.282	0.788	0.519	-0.339	0.101	0.178	0.247
INC2	0.569	0.099	0.513	0.332	0.935	0.567	-0.426	0.128	0.238	0.279
INC3	0.461	0.083	0.478	0.352	0.819	0.411	-0.382	0.135	0.248	0.305
INF1	0.505	0.115	0.267	0.489	0.435	0.795	-0.452	-0.029	0.178	0.179
INF2	0.538	0.035	0.148	0.392	0.503	0.845	-0.367	-0.084	0.177	0.203
INF3	0.44	0.069	0.196	0.333	0.466	0.745	-0.404	-0.054	0.232	0.16
IRR1	-0.418	-0.018	-0.137	-0.155	-0.302	-0.351	0.819	0.002	-0.078	0.049
IRR2	-0.452	-0.027	-0.124	-0.258	-0.37	-0.484	0.903	0.02	-0.05	-0.008

	ATUSA	Awareness	Brand Loyalty	Consumer Control	Incentives assessment	Informativeness	Irritiveness	Permission Importance	Trust	Value
IRR3	-0.373	0.008	-0.294	-0.279	-0.4	-0.418	0.883	0.106	-0.055	-0.053
IRR4	-0.412	-0.052	-0.289	-0.313	-0.421	-0.484	0.909	0.058	-0.106	-0.12
IRR5	-0.413	-0.082	-0.208	-0.395	-0.447	-0.445	0.773	0.183	-0.145	-0.129
PRM1	-0.135	-0.025	0.12	0.096	0.092	-0.109	0.089	0.852	0.121	0.247
PRM2	-0.109	0.051	0.16	0.045	0.164	-0.01	0.02	0.907	0.066	0.185
PRM3	-0.103	0.069	0.027	0.007	0.126	-0.054	0.108	0.852	0.077	0.086
Trust1	0.307	0.509	0.594	0.183	0.274	0.188	-0.051	0.216	0.875	0.684
Trust2	0.378	0.35	0.486	0.22	0.298	0.264	-0.11	0.056	0.899	0.485
Trust3	0.326	0.391	0.504	0.154	0.194	0.192	-0.048	0.03	0.944	0.566
Trust4	0.397	0.412	0.488	0.183	0.238	0.252	-0.102	0.033	0.928	0.638
Trust5	0.309	0.352	0.483	0.16	0.184	0.251	-0.117	0.134	0.911	0.633
Trust6	0.211	0.255	0.466	0.081	0.211	0.15	-0.131	0.062	0.792	0.421
VA1	0.378	0.325	0.44	0.428	0.331	0.297	-0.117	0.195	0.549	0.848
VA2	0.229	0.296	0.586	0.346	0.221	0.242	-0.011	0.199	0.513	0.863
VA3	0.266	0.304	0.614	0.133	0.293	0.071	-0.032	0.147	0.618	0.88

APPENDIX V - QUESTIONNAIRE

Please note that the questions' content and order is similar to the developed questionnaire. However, the adjustments on the paper margins, fonts and length of the tables are made to comply with the thesis format.

Questionnaire

We are conducting a survey about the influence of SMS advertising on brand equity. SMS advertising messages are the text messages that corporates send to their prospective customers to promote their brands, products or exclusive clubs. This survey is part of my PhD research project at the University of Salford and the results of the survey will be used for academic research only. All information you enter will be anonymous and you may withdraw from answering the questions at any stage up to the point of dissemination and publication of findings.

I am grateful for your help.

Please choose your mobile service provider

a ☐ b ☐ c ☐ d ☐
e ☐ f ☐ g ☐ others (Please specify)

Have you received advertising text messages (i.e. text messages to promote their new services or exclusive offers) from your [XX] mobile network during the last 6 month?

Yes ☐ No ☐

If yes, please state how often do you receive advertising text messages?

Very rarely ☐ Rarely ☐ Sometimes ☐ Often ☐ Very often ☐

Please indicate your level of agreement with the following statements about the SMS advertising messages you receive from your [XX] mobile network (Please tick or circle the most appropriate option from 1 very strongly disagree to 7 very strongly agree).

Mobile advertising

	Very strongly disagree	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Very strongly agree
I feel that SMS advertising messages sent by [XX] mobile networks are a good source for timely information.	1	2	3	4	5	6	7
SMS messages sent by my mobile networks, provides the information I need.	1	2	3	4	5	6	7
Through advertising messages (sent by my [XX] mobile network) via the mobile phone I receive timely information.	1	2	3	4	5	6	7
Through advertising messages (sent by my [XX] mobile network) via the mobile phone I receive exclusive information.	1	2	3	4	5	6	7
I feel that receiving mobile advertisements from my [XX] mobile network enjoyable.	1	2	3	4	5	6	7
I feel that receiving SMS advertisements from my [XX] mobile network is pleasant.	1	2	3	4	5	6	7
I feel that receiving mobile advertisements from my [XX] mobile network is entertaining.	1	2	3	4	5	6	7
I find SMS advertising messages from [XX] distracting	1	2	3	4	5	6	7
I find SMS advertising messages from [XX] disturbing	1	2	3	4	5	6	7
I find SMS advertising messages from [XX] forced	1	2	3	4	5	6	7
I find SMS advertising messages from [XX] interfering	1	2	3	4	5	6	7
The advertising messages customized to my profile are fun	1	2	3	4	5	6	7
I find advertising messages (sent by my [XX] mobile network) via the mobile phone exciting	1	2	3	4	5	6	7
I find SMS advertising messages from [XX] intrusive	1	2	3	4	5	6	7
I find SMS advertising messages from [XX] obtrusive	1	2	3	4	5	6	7
I find SMS advertising messages from [XX] trustworthy	1	2	3	4	5	6	7
I find SMS advertising messages from [XX] honest	1	2	3	4	5	6	7
I find SMS advertising messages from [XX] credible	1	2	3	4	5	6	7
I find SMS advertising messages from [XX] believable	1	2	3	4	5	6	7
I use SMS advertising messages from [XX] as a reference for purchasing	1	2	3	4	5	6	7
I find SMS advertising messages from [XX] convincing	1	2	3	4	5	6	7

Message Characteristics

	Very strongly disagree	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Very strongly agree
I find SMS promotions sent from [XX] attractive.	1	2	3	4	5	6	7
I find SMS promotions sent from [XX] mobile a good buy.	1	2	3	4	5	6	7
I find SMS promotions sent from [XX] extremely fair.	1	2	3	4	5	6	7
I find SMS promotions sent from [XX] extremely valuable.	1	2	3	4	5	6	7
I feel that SMS advertising messages from [XX] display personalized messages to me.	1	2	3	4	5	6	7
Contents in [XX] SMS advertisings are personalized	1	2	3	4	5	6	7
I feel that SMS advertising messages from [XX] are personalized for my usage.	1	2	3	4	5	6	7
I value goods and services that are personalized on information that I have voluntarily given out (such as age range, salary range, Zip Code) but cannot identify me as an individual.	1	2	3	4	5	6	7
I value goods and services that are personalized on information I have voluntarily given out and can identify me as an individual (such as name, credit card information).	1	2	3	4	5	6	7
I value mobile network operators that acquire my personal preferences and personalize the services and products themselves.	1	2	3	4	5	6	7
I am in control over the amount of advertising SMS messages I receive from [XX].	1	2	3	4	5	6	7
I can easily cancel the permission to [XX] to send SMS marketing messages to me	1	2	3	4	5	6	7
I can choose the types of message that I receive from [XX] (text message, picture message or video message).	1	2	3	4	5	6	7
I can control when I receive SMS advertisements on my mobile phone from [XX]	1	2	3	4	5	6	7
Generally I would only be prepared to receive SMS advertisements if I had provided my permission.	1	2	3	4	5	6	7
Generally It is important for me that I can control the permission to receive SMS advertising.	1	2	3	4	5	6	7
It is important for me that I can refuse to receive SMS advertising generally.	1	2	3	4	5	6	7
It is important for me that I can filter mobile marketing messages to match my needs	1	2	3	4	5	6	7
I am willing to participate in SMS marketing activities.	1	2	3	4	5	6	7
I am willing to provide my background information (e.g. Gender, age) to a company practising SMS marketing.	1	2	3	4	5	6	7
I am willing to give my mobile phone number to a company that practises SMS marketing.	1	2	3	4	5	6	7

Mobile Marketing Attitude

	Very strongly disagree	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Very strongly agree
Using SMS advertising is a good idea	1	2	3	4	5	6	7
Using SMS advertising is a wise idea	1	2	3	4	5	6	7
I find receiving advertising messages via the mobile phone positive	1	2	3	4	5	6	7
I appreciate receiving SMS advertising messages	1	2	3	4	5	6	7
I would read all the mobile advertising messages I receive in the future	1	2	3	4	5	6	7
I feel positively about mobile advertising	1	2	3	4	5	6	7

Section B- You

Please choose the appropriate option:

Gender

Male ☐ Female ☐

Please select the appropriate age group

18-25 ☐ 26-30 ☐ 31-35 ☐ 36-40 ☐ 41-45 ☐ 46-50 ☐ 50+ ☐

Please circle or tick the appropriate answer (from 1- very strongly disagree to 7-very strongly agree)

Experience and Privacy

	Very strongly disagree	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Very strongly agree
I have a profound knowledge about mobile communications	1	2	3	4	5	6	7
In comparison to my circle of friends I am an expert in mobile communications	1	2	3	4	5	6	7
In my circle of friends I am usually the first who knows about the latest mobile phones	1	2	3	4	5	6	7
I believe that mobile operator uses my data only for a purpose that I have approved	1	2	3	4	5	6	7

	Very strongly disagree	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Very strongly agree
I believe that the consumer is protected by laws related to data privacy when it comes to mobile marketing	1	2	3	4	5	6	7
I believe that mobile marketers would use my data only for a purpose that I have approved.	1	2	3	4	5	6	7
I am sensitive about giving out information regarding my preferences	1	2	3	4	5	6	7
I am concerned about how my personally identifiable information (information that I have voluntarily given out and can be used to identify me as an individual, e.g., name, shipping address, credit card or bank account information, social security number, etc.) will be used by the firm	1	2	3	4	5	6	7
I am concerned about how my personally un-identifiable information (information that I have voluntarily given out but cannot be used to identify me, e.g., Zip Code, age-range, sex, etc.) will be used by the firm	1	2	3	4	5	6	7

Please answer for following questions:

How many SMS marketing messages, which advertise a product or service did you receive on your mobile last month?

How many times have you responded to SMS marketing message by replying to the message (e.g. ordering a product or service or visiting the relevant website) during the last six months?

How many times have you participated in SMS sweepstakes or competitions during the last six months?

Section C

Please answer the following questions with regards to [XX].

Awareness

	Very strongly disagree	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Very strongly agree
I know what my [XX] looks like	1	2	3	4	5	6	7
I can recognize [XX] among other competing services	1	2	3	4	5	6	7
I can quickly recall the name of [XX]	1	2	3	4	5	6	7
I am aware of [XX]	1	2	3	4	5	6	7

Trust

	Very strongly disagree	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Very strongly agree
I feel safe in my transactions with [XX].	1	2	3	4	5	6	7
I trust [XX] to keep my personal information safe.	1	2	3	4	5	6	7
[XX] has my confidence.	1	2	3	4	5	6	7
I think I can have confidence in the promises [XX] make.	1	2	3	4	5	6	7
I think the information offered by [XX] is sincere and honest.	1	2	3	4	5	6	7
[XX] doesn't make false statements.	1	2	3	4	5	6	7

Emotional Connection

	Very strongly disagree	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Very strongly agree
I feel related to the type of people who use [XX].	1	2	3	4	5	6	7
I feel like [XX] cares about me.	1	2	3	4	5	6	7
I feel as though [XX] really understands me.	1	2	3	4	5	6	7

Experience

	Very strongly disagree	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Very strongly agree
I never feel lost when navigation through [XX].	1	2	3	4	5	6	7
I was able to obtain the information I wanted without any delay	1	2	3	4	5	6	7
[XX] layout is appealing	1	2	3	4	5	6	7
[XX] is always up to date	1	2	3	4	5	6	7
The offers are always up to date	1	2	3	4	5	6	7
Requests are always returned promptly	1	2	3	4	5	6	7

Responsiveness

	Very strongly disagree	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Very strongly agree
I receive prompt responses to my requests by e-mail or other means when contacting [XX].	1	2	3	4	5	6	7
[XX] quickly resolves problems I encounter	1	2	3	4	5	6	7
[XX] provides me real-time information	1	2	3	4	5	6	7
[XX] is willing and ready to respond to customer needs	1	2	3	4	5	6	7
[XX] gives visitors the opportunity to 'talk back'	1	2	3	4	5	6	7

Value associations

	Very strongly disagree	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Very strongly agree
Compared to the time I need to spend, the use of [XX] is worthwhile to me.	1	2	3	4	5	6	7
Compared with others it is wise to choose [XX].	1	2	3	4	5	6	7
In [XX] I can find the lowest prices for a quality brand	1	2	3	4	5	6	7
Compared to the effort I need to put in, the use of [XX] application is beneficial to me.	1	2	3	4	5	6	7
Overall the use of [XX] delivers me good value	1	2	3	4	5	6	7

Fulfilment

	Very strongly disagree	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Very strongly agree
I got what I ordered from [XX].	1	2	3	4	5	6	7
The order was fulfilled by the time promised by [XX].	1	2	3	4	5	6	7
The products/Services are presented accurately on [XX]	1	2	3	4	5	6	7
The final price on [XX] reflects the true value.	1	2	3	4	5	6	7
The order is fulfilled as promised.	1	2	3	4	5	6	7
In [XX], it takes too much time to upload the links	1	2	3	4	5	6	7
It does not take too much time to download the information I need in [XX]	1	2	3	4	5	6	7
[XX] can instantly react to the data I input	1	2	3	4	5	6	7

Brand loyalty

	Very strongly disagree	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Very strongly agree
Even if another brand has same features as in [XX], I would prefer to use [XX]	1	2	3	4	5	6	7
I encourage friends to do business with [XX].	1	2	3	4	5	6	7
I say positive things about [XX] to other people.	1	2	3	4	5	6	7
I will use [XX] in the next few years.	1	2	3	4	5	6	7
I would recommend [XX] to someone else	1	2	3	4	5	6	7
It is unlikely I use [XX] again	1	2	3	4	5	6	7
I consider myself to be loyal to [XX]	1	2	3	4	5	6	7
[XX] would be my first choice	1	2	3	4	5	6	7

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